

IND

MODEL CAR Science

NOVEMBER 1968

50c

HOW TO:

- USE RUBBING COMPOUND
- MAKE A VINYL TOP

**NEW RACE
REPORTS!**

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1/32 "KING COBRA"**



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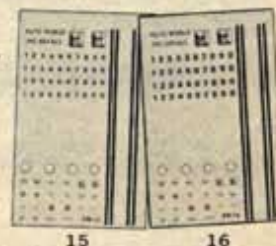
- ☐ HO Auto World Decals25
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- ☐ No. 49 AUTO WORLD SPONSOR DECAL SHEET49

NOTE: Actual sponsor decal sheet is slightly different from the sheet pictured here.

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MODEL CAR & SCIENCE



"The Official Voice
of NAMRA-HOCCI"



Volume 6, Number 11

November, 1968

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6/Model Car Science



MONEY PROBLEMS

About four months ago my cousin and I quit racing our slot cars because the prices got too high at our local raceway. At first it was 25¢ for 15 minutes, 35¢ for a half hour and 65¢ for an hour. Now it's 35¢ for 15 minutes and 70¢ for a half hour. I'm sure many other guys have the same problem. Is there any solution to this problem? Your mag is still the best with me, and I value your opinion.

Richard Llosa
Tampa, Florida

It's a tough problem, Dick. The raceway owners in your area have obviously found it necessary to raise the prices to cover ballooning costs, just like a lot of other businesses have had to. They don't want to, but it's necessary, because their expenses have gone up accordingly. The only answer is to build your own race track at home, which is what a lot of fellows have done, if our mail is any indication. In order to help you (and fellows sharing your dilemma) we have whipped up an article that should help solve the problem.

HOW TO GET BACK ISSUES OF MCS

I'd like to get some of your back issues. Is there any way that I could obtain a list of them? Keep up the great work.

Curt Pearce
North Attleboro, Mass.

We have some copies of various issues in stock, Curt, but the turnover is so fast that we can't make up a list of them. We suggest that you simply send 50¢ for each issue you want, and tell us the month and year. If we have it in stock, we'll send it, otherwise we'll return your money promptly. Send the 50¢ and description of what you want to: Back Issue Dept., MODEL CAR SCIENCE, 131 Barrington Place, Los Angeles, California 90049.

WHY DON'T YOU SUBSCRIBE?

I'm having trouble finding your magazine in this little town that I live in. Where can I find it?

Jan Johnson
Albany, Illinois

Why don't you just subscribe, Jan? It's cheaper than buying it on the newsstands, and you get it before

everybody else does, too! Check our subscription offer in this issue.

HELP IS ON THE WAY!

Where can I find a list of addresses of the model manufacturers and suppliers? I can't get a thing in our local hobby shop, so that leaves only one thing to do—go directly to the manufacturer.

Fred Flannery
Spokane, Wash.

We get lots of requests like yours, Fred. Watch next month's MCS. We're going to run a perpetual listing that contains the name and address of every important company in the model-making field. Should be priceless to you!

HELP FOR THE "CUT UPS"

You've got a great mag, balanced perfectly between model construction and racing. On the model building side, will an Auto World Auto-Cutter heating element fit into a regular soldering pen? If so, can I buy just the element and the blade? Thanks for your help.

Mike Rhinehart
Kettering, Ohio

The latest Auto World catalog does not list the element and blade separately, Mike. However, the entire tool costs just \$3.95, and the special stainless steel cutting tip is guaranteed for life! I'd suggest that you send for Auto World's informative catalog. You'll find it advertised in this issue. They've got thousands of items for model builders.

HERE'S A NEW CONTEST FOR YOU!

I read that you have a contest for HO table top road racing fans, in addition to your regular "Model of the Month" contest. Well, how about a contest for 1/32 scale slot cars? I have a setup at home that I am very proud of, and one I've taken a lot of time to build. I'm sure a lot of other guys have 1/32 cars that they feel could win a contest too. How about us?

J.D. Jackett
Key West, Florida 33040

Hokay, J.D., you're on! Here's the deal: As soon as we receive enough photographs to put together a contest, we'll begin. The rules will be as simple as the rules to our "Model of the Month" contest. You 1/32 scale racing fans simply send a clear black and white photograph (no color) of your car, along with a brief description as to what you've done to it, to The Contest Editor, MODEL CAR SCIENCE, 131 Barrington Place, Los Angeles, California 90049. Don't use a Polaroid "Swinger" camera if possible, since this camera, though superb for what it was intended (casual snapshots) does not seem to work well for close-ups, unless you are an extremely experienced photographer. We don't care what size the photo is, but it MUST be sharp, and not too dark. We receive hundreds of photos every month for



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our regular model contest, but unfortunately most of them are so poor that we can't print them, even though the car itself might be absolutely superb. So that's it, guys, get going. If you have a 1/32 scale home racer that you're especially proud of, get with it. This contest is definitely NOT a "customizing" contest. It is strictly for "scale appearing" cars. Therefore, we will judge each entry on the quality of the paint job, detailing and craftsmanship. The monthly prize will be a \$25 Savings Bond. GO!

WANTS A PRO MOTOR

Your mag is the coolest around. Where can I purchase a really hot, super-fast rewound motor like the pros have? I'd like to have something that will really move.

Tony Sestanovich
Studio City, Calif.

The motors are available, Tony, but I hope you're loaded with the long green stuff! The fact of the matter is, the "pros" are now using motors right off the shelf, just like everybody else! Hard to believe? Well, it's true. Hot thumbs like John Cukras and others are using the hot out-of-the-box pro motors put out by people like Mura, Champion, etc., as they have found that they can't build a motor any faster than the new \$18-\$30 motors being offered by the more progressive motor manufacturers. And there has been a tremendous increase in reliability lately, too. These super-expensive motors used to blow up right and left, but the new ones, thanks to superb quality control and more advanced design, are dead reliable, not to mention FAST! So if you want a pro motor, just lay the bucks down and buy one off the shelf. Most of the hot motor manufacturers advertise in MCS.

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RACING DECALS

- SCCA - FIA REGULATION NUMBERS
- SPONSOR DECALS
- DECORATE YOUR MODEL CARS LIKE REAL RACE CARS

E-Z TO USE!

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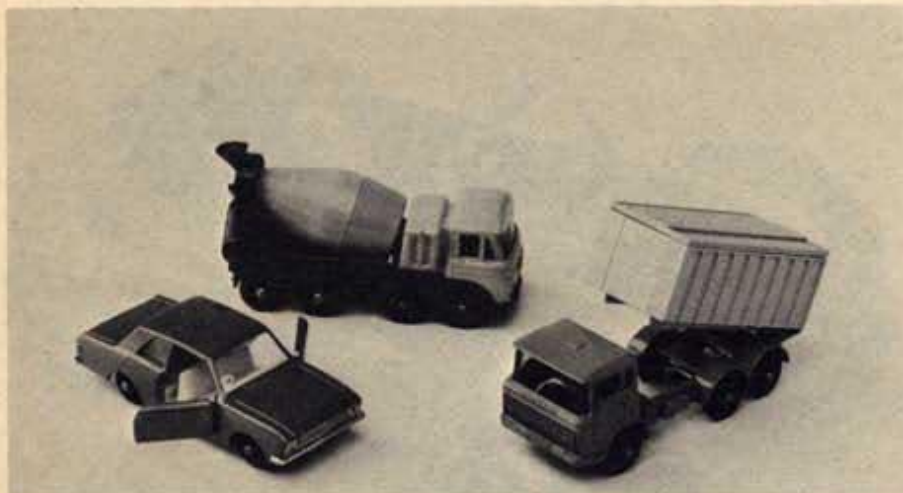
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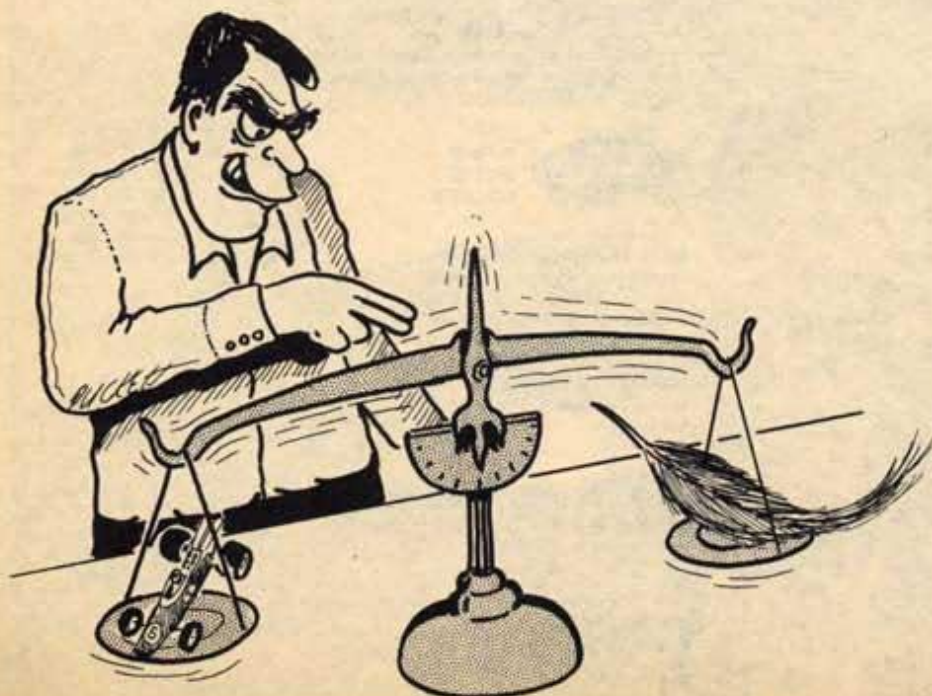


For small hobby work a new product from MarMarc Co., Dept. MCS, 400 East 17th St., Brooklyn, N.Y., called HOBBI PORT A TABLE. Measuring only 16" x 9 1/2" x 2 1/2" and weighing under 6 lbs., the unit features two Vacu Bases which adhere to most surfaces, plastic non-smear table top, handy drawer, two socket electrical outlet with six foot line cord, four implement ruler, 3/4" wood thick table and 2" front wood legs. Retail Price: \$13.00

NEW PRODUCTS



Three new numbers have joined the "MATCHBOX" Series of diecast models, No. 21 Foden Concrete Truck has a revolving barrel, which turns as the truck moves. The new No. 25 Ford Cortina is the first "MATCHBOX" model to feature the exclusive new "Autosteer" system. No. 47 DAF Tipper Container truck is designed from a Dutch prototype. Retail Price 55¢ each.



OCTOBER, 1968



HOG

The powerful Harley-Davidson is a motorcycle with a personality—and a name—all its own. It's known as the "Hog." (Pronounced "Hawg.") It's a monster bike...even when it's customized by stripping and adding wild new parts. (Then it's known as a "Chopped Hog.") A real Chopped Hog can cost over \$2,000, but Revell's new model of this colorful motorcycle costs less than \$4.00. It has colored, clear and chrome parts, plus steerable and moveable wheels. And building one can be a moving experience. For a catalog of 250 Revell models, send 25¢ to: Revell, Inc., 4289 Glencoe Avenue, Venice, California 90291.



Model of the Month
Harley-Davidson
"Chopped Hog"



November, 1968/9

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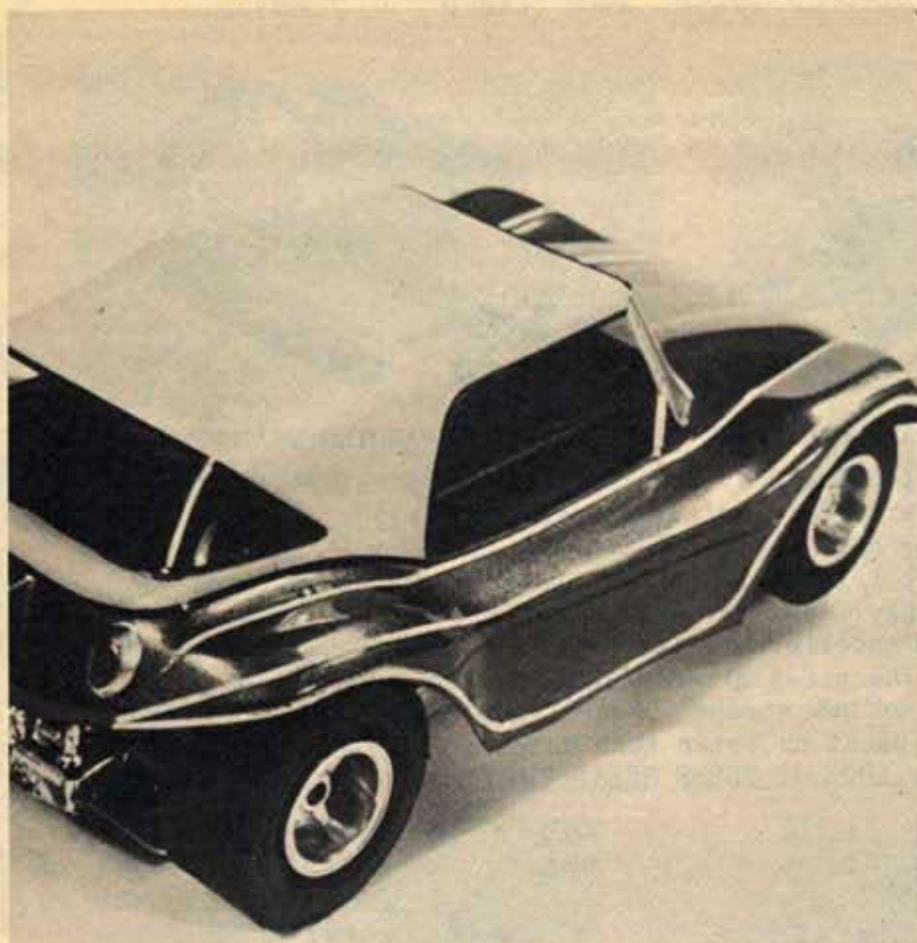
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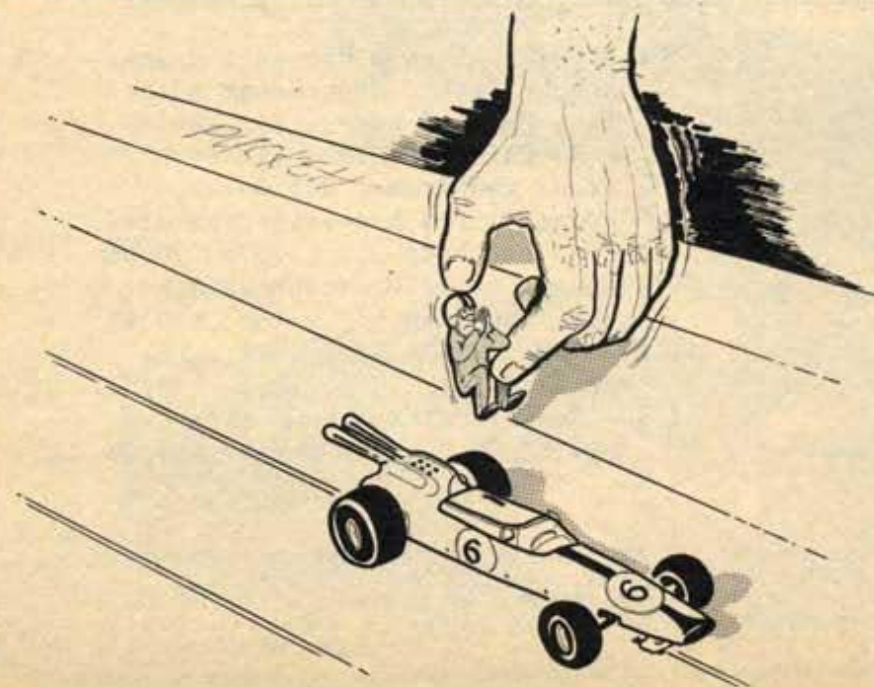
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Also new from Auto World a complete kit to assemble a 1/24 scale slot racer called the "Auto World Dunester" in an E-Z to build form with all necessary parts to complete the car, including dune buggy tires, wheels, frame, spur-driven "Big Can" motor, and clear plastic body. Complete kit is \$4.98. Bodies are available separately for \$1.49 each.



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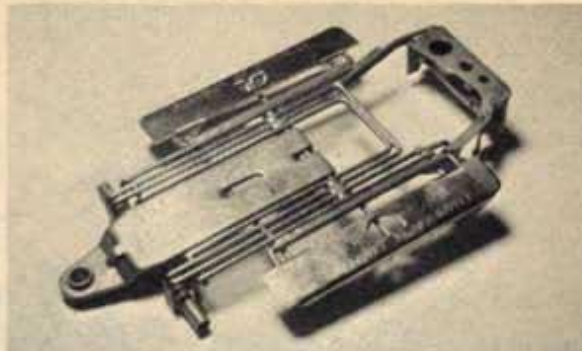
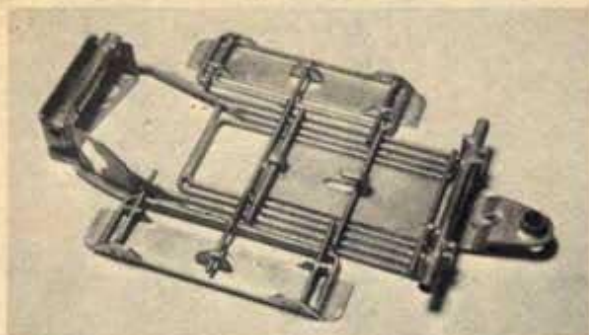
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- #173** - Same as #172 except with a 617 "ARCO Rewind" motor..\$19.95



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THE WESTERN STATES CHAMPIONSHIP RACES

By Gene Hustings

An amateur showed the pros how it's done at this important MCS/USRA bash!

The Western States Championships was the USRA's most important race of the series with Sandy Gross, Bob Emott, Chris Vitucci, Ed Lewis and John Street from the New York area coming out here a full three weeks before the race to give them enough time to prepare for it. Longest distance award went to Russ Boyington from Connecticut. Missing were the Texans who apparently had enough of us Westerners when Cukras, Schmid and Garcia swept the first three places at their big Texas Hemisfair race.

Ray Wallace's Checquered Flag Raceways, 815 Arbor Vitae Blvd., Inglewood, California, was the scene of the action for this Sports Car race. This is strictly a drivers course. If you can drive on this track you'll have no problems on any other track. Ray installed new double-power packs for the new larger wire motors everyone is running now. We ran a CAR MODEL race on this track last year at which time Cukras had the record with his GP car at 9.14. At the first warmup race, Mike Steube shattered that mark with an 8.47 and went on to win, making him an early favorite. Mike also won the next week's race. Doug Henline won the next two with Cukras taking the last tune-up race. Vitucci and Emott were looking pretty good but Sandy Gross had not yet been under nine seconds. A mysterious phone call a week before the race ordering (?) Sandy back to New York to prepare for a Cobra race, which was a full week after our race, did nothing to enhance the names of Gross or Cobra on the West Coast.

The final week's practice was very hectic with the track open till after two in the morning. There were some pretty fantastic times turned during practice by Doug Henline and Bryan Warmack, among others. Mike Steube had destroyed his jet and was having a little trouble finding the combination again. There have been quite a few changes made since we ran on this track a year ago. There were no such things as sidewinders running here then; now there are no such things as inlines in sports cars running here. Another change has been in motors. A

year ago, Bob Rule from Champion was out here with a carload of Arco magnets. If you weren't running a Champion 517 with Arcos, or at least Arcos in your Mabuchi can, you weren't winning. Times have changed. The overwhelmingly popular combination now is the new Mura can, magnets and unmeltable endbells. There's no question that Mura's unmeltable endbells are the best currently available, but I honestly have not been able to see a noticeable difference between the Mura-Versitec or Arco magnets properly set up in identical cans. The Mura can and the Champion black can are close in performance but the Mura can fits much better to the Mura endbell. Also I favor the Mura full-circle shim over the Champion horse-shoe-type shim, but I can't understand why they can't build a good can and do away with the shims entirely.

However, Champion has not been sleeping while Mura has been making the big news. They've got some rather fantastic motor innovations on the drawing boards and in the experimental stages, but it will take a few months before they're put into production. In the meantime, Champion has come out with a new armature with high quality silicon steel and thinner laminations, diamond turned comms and balancing the armatures by drilling instead of grinding. Of course Mura has gone them one better with their ".007" armatures. These have 72 laminations that are only .007 thick and are what most of the guys are now running.

Another big change in a year's time has been in controllers. Last year, everybody was using the Cox controllers with MRC resistors and only a few diehards from the old Russkit Team used the Russkit controllers. Now almost half the guys are using the new Russkit two and one-half OHM controllers. Ken A. McDowell of Parma Raceways, goes one step farther on the Russkit controllers. He rewinds the resistor with a higher quality wire, uses a better quality wiper, bushes the trigger and adds gigantic hookup wire for one of the smoothest feeling controllers anywhere.

Bob Emott modifies the Russkit controller in a different manner. Bob also feels the stock Russkit resistor has too much resistance, especially in the full on position, so he incorporates micro switches inside the controller to lower the resistance buildup in the full power and in the braking circuits. The ultimate controller would be a combination Parma and Emott using the best features from both.

A couple of things have not changed in a year's time. Associated is still the biggest name in blue sponge tires as well as front tires now, and Dynamic is still the leader in bodies, but the newly introduced Russkit and Rigen bodies are sure to find their way into many a slot box. And of course, Bob Kovacs is still the master at painting these bodies. When the dyed-in-the-wool concours nuts give up and let Kovacs paint their cars, this should be proof enough.

The USRA continued with their procedure of holding qualifying on Friday night and the race on Saturday night. There isn't as much pressure needed to try to hurry things along this way and it works out better for all concerned. Apparently qualifying is as important to racer and spectator alike, as the raceway was packed for the qualifications. One of the quickest of the earlier qualifiers was Lee Gilbert from Washington. Lee is still rated as a USRA amateur, but his time of 8.42 was better than most of the pros had ever turned.

Another amateur took his turn a few minutes later and completely destroyed all the troops. Charlie Nelson is a name you'll want to remember. Charlie had quick qualifying time at the USRA Amateur Race two weeks earlier and looked like a sure winner as he was lapping everybody in the race until his motor slowed down, giving the race to Tom Hansen. Ray Wallace had made up the qualifying charts starting with 8.30 and going on down to 10.00 seconds, figuring nobody could possibly go faster than an 8.30. Charlie turned an 8.28 and there were a lot of guys who couldn't believe it. But it was true. Cukras turned an 8.43 for a sitout spot in the main. Mike

SEMI-MAIN

PLACE	NAME	TEAM	E.T.	LAPS
1	MIKE STEUBE	CHECKPOINT	8.67	120
2	TERRY SCHMID	MURA	8.58	119
3	CHRIS VITUCCI	MINI WHEELS	8.58	119
4	BRYAN WARMACK	DYNAMIC	8.67	119
5	MIKE MORRISSEY	EMOTT ENT.	8.53	116
6	BRUCE ERICKSON	DYNAMIC	8.44	115
7	DAVE GRANT	DYNAMIC	8.50	47
8	JOHN ANDERSON	CHAMPION	8.57	15

A CONSOLATION

1	MIKE STEUBE	CHECKPOINT	8.67	80
2	BRYAN WARMACK	DYNAMIC	8.67	78
3	KEN KESSIE	INDEPENDENT	8.65	78
4	LEE HINES	CHECKPOINT	8.59	78
5	JOE KELLY	DYNAMIC	8.68	77
6	TOM HANSEN	INDEPENDENT	8.67	75
7	FRED KUNZE	INDEPENDENT	8.67	41
8	JEFF MARTINELLI	DYNAMIC	8.61	24

B CONSOLATION

1	JOE KELLY	DYNAMIC	8.68	60
2	BRYAN WARMACK	DYNAMIC	8.67	59
3	DAVE HOWARD	CHECKPOINT	8.71	56
4	JACK GARCIA	DYNAMIC	8.88	56
5	RUSS BOYINGTON	INDEPENDENT	8.71	55
6	FRANK PIERCE	MATTESON	8.74	54
7	JOHN STREET	MINI WHEELS	8.70	54
8	KEITH TANAKA	INDEPENDENT	8.81	6

L.A. CHAMPIONSHIP POINT STANDINGS

PLACE	NAME	POINTS
1	MIKE STEUBE	32
2	TERRY SCHMID	26
3	JOHN CUKRAS	21
4	DOUG HENLINE	16
5	LEE HINES	11
6	CHARLIE NELSON	10
7	BRYAN WARMACK	6
8	JACK GARCIA	5
8	KEITH TANAKA	5
8	CHRIS VITUCCI	5
9	JERRY COWAN	4
9	DAVE HOWARD	4
10	JOHN GALLEGOS	3
11	RAY GARDNER	2
11	FRED KUNZE	2

SECOND M.C.S./U.S.R.A. AMATEUR RACE

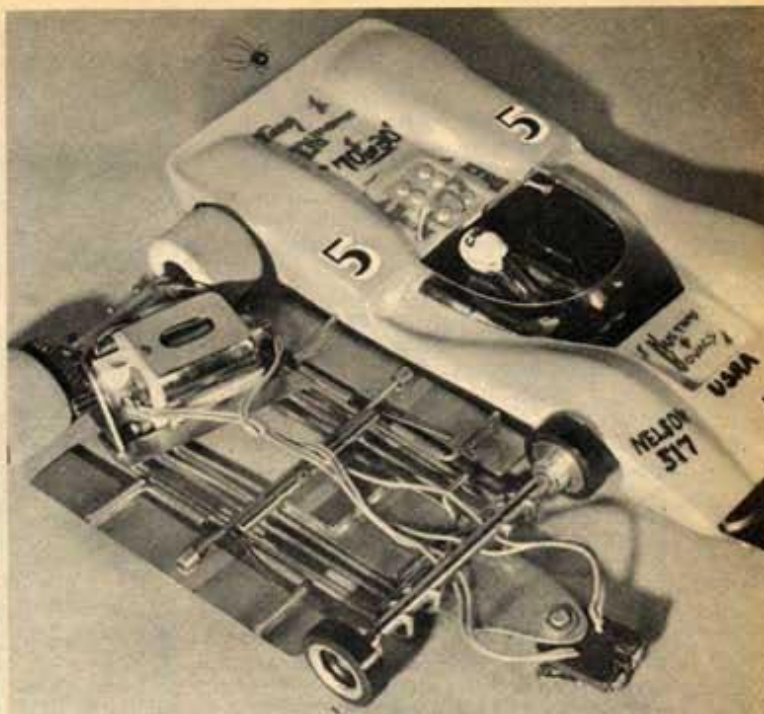
PLACE	NAME	QUALI. TIME	POINTS
1	TOM HANSEN	8.94	10
2	JIM FOWLER	8.81	8
3	BILL LARGENT	9.02	6
4	JIM SUMWALT	8.79	5
5	JACK GESLER	8.75	4
6	TIM FIELDS	8.70	3
7	CHARLIE NELSON	8.46	2
8	KEN KESSIE	8.58	1

CONCOURS

1	JIM FOWLER
2	CLARENCE GIBSON
3	JACK GESLER

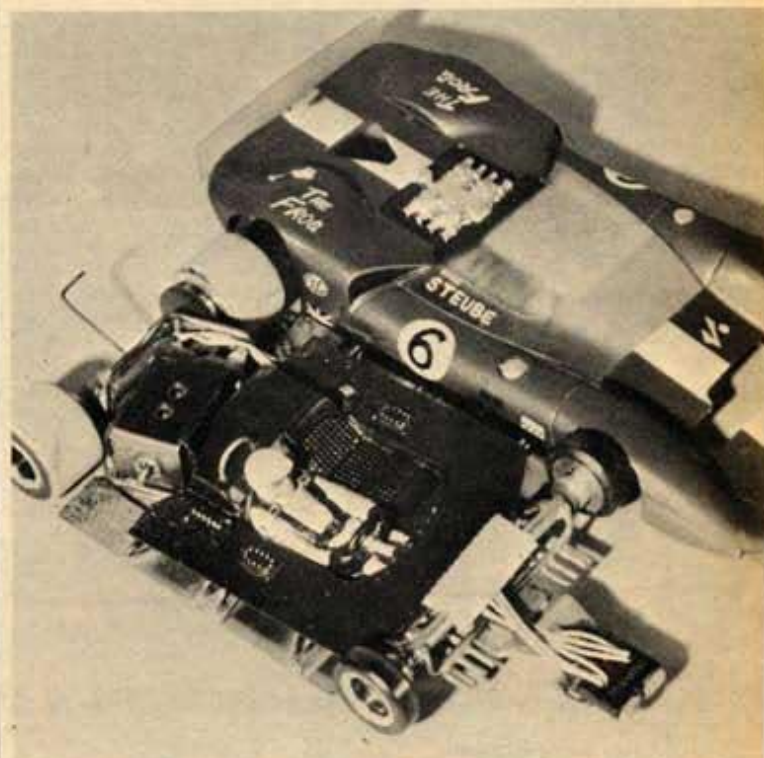
CONCOURS POINT STANDINGS

PLACE	NAME	POINTS
1	LYNN FLETCHER	5
2	RAY GARDNER	3
2	GEORGE SYSINGER	3
2	MIKE MORRISSEY	3
3	JERRY COWAN	2
3	BUD DILL	2
3	MIKE LEVY	2



Winner of the main and second quickest qualifier—Charlie Nelson's supersano car. Charlie did everything different from everyone else. He used a Champion 517 motor with a white endbell, a McLaren M6A body, Riggen tires and balanced his own wound armature on razor blades. Do you suppose there's a chance everyone else is wrong?

Photos by Al Hall



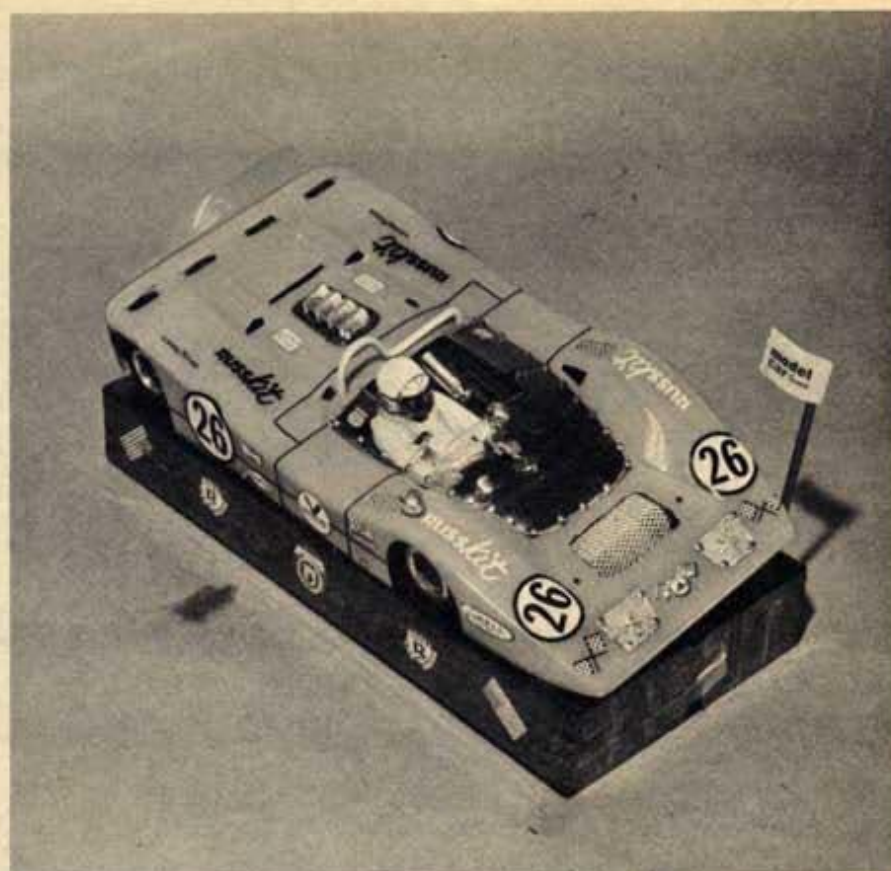
Mike Steube took second place in the main the hard way. He first won the "A" Consie and then the semi-main. His Lola is powered by a Steube-modified Mura motor and Mike used Associated tires, front and rear.

Morrissey was one of the smoothest drivers in qualifying, with an 8.53. Mike Steube was a big surprise in qualifying. The night before his car was a rocket, but this night it just didn't have the punch and Mike turned a rather slow—for him—8.67. John Anderson did what I wish I could do. Without having even been in the raceway for one minute's practice since a year ago (John has been racing Go-Karts lately), John turned 8.57! As further proof of his driving abilities, John has been driving one of my original sidewinders, starting the week after I won the first race with a sidewinder at J & J's. During this four month period to date, John has had quick qualifying time and won every race! And everyone here, including a few from the East, have tried to do the deed.

The final qualifier was Doug Henline. Doug had been working pretty hard for this race with many a late practice session, as had Bill Steube who supplied the power as Doug rocketed down the straights, reminding me more of a dragster than a road racer, as Doug turned an out of sight 8.19!!! Ray Wallace said that that record would probably last for a year.

Race day and the track was packed as usual. Mike Steube won the final Consolation Race (there were six consolation races) and advanced to the semi with Bryan Warmack. The semi was a real battle with Warmack, Schmid and Steube each winning a heat. Morrissey was running with the leaders until his brush springs got hot and lost their tension. But all was not lost for Mike as he won concours with his body by Kovacs, second went to Mike Levy and third to Jeff Martinelli. Steube won the semi with Schmid, Vitucci and Warmack all less than a lap behind and all advancing to the main.

The main eventers were shooting for a first place prize of \$96.00 plus something extraordinary that every one of them would appreciate. Jim Russell of Russkit had donated, as a



Top Concours car from the amateurs was this beautiful Russkit Elfen by Clarence Gibson. Clarence put a lot of detail in this car.

prize, a free driving lesson at Bob Bondurant's Competition Driving School. And as a plus, Jim brought Bob Bondurant to our race so Bob could explain his driving school to everyone present.

Well, the consensus of opinion was that Doug Henline was the one to beat in the main, but it never developed. An early crash put Doug's car on the floor apparently bending the chassis and putting him out of further contention. Cukras took a slightly early lead

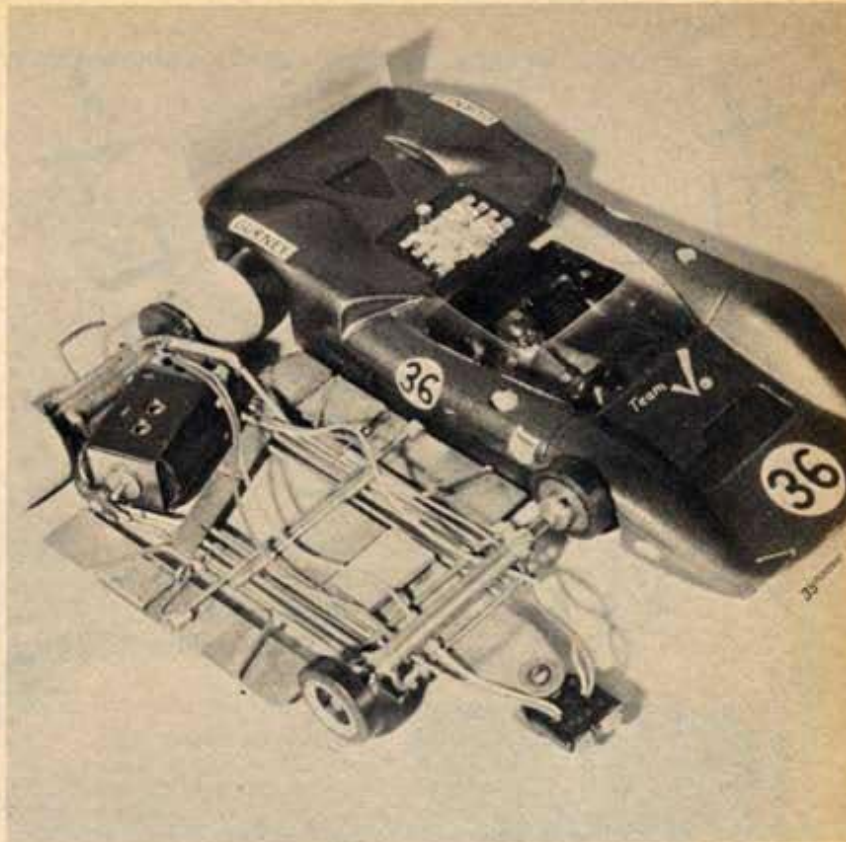
with Steube right with him and the two of them put on a beautiful race with both of them crossing for 25 laps at the end of the first heat. All eight lanes are run in the main and during the next heat their duel continued until Cukras spun a pinion gear. John had tried Loctite on the gear but it didn't hold too well. Back to the solder. At the end of 50 laps Mike Steube was all by himself with the closest racers to him, the two amateurs, Charlie Nelson and Lee Gilbert at 47 laps. Steube was still leading after six heats and 150 laps but

M.C.S./U.S.R.A. Western States Championships

	NAME	TEAM	E.T.	LAPS	BODY TYPE	MOTOR	REWIND TURNS #WIRE	MAGNETS	COMMUTATOR
1	CHARLIE NELSON	INDEPENDENT	8.28	200	DYNAMIC McLAREN M6A	NELSON 517	40-D30	ARCO	CHAMPION
2	MIKE STEUBE	CHECKPOINT	8.67	199	DYNAMIC LOLA T70	STEUBE CAN	35-26	VERSITEC	CHAMPION
3	BRYAN WARMACK	DYNAMIC	8.67	195	DYNAMIC LOLA T70	DYNAMIC ZIMMERMAN	35-26	DYNAMIC	THORP
4	CHRIS VITUCCI	MINI WHEELS	8.58	195	DYNAMIC LOLA 3B	MURA	30-25	MURA	KIRKWOOD
5	TERRY SCHMID	MURA	8.58	192	DYNAMIC LOLA	MURA	-25	MURA	MURA
6	DOUG HENLINE	CHECKPOINT	8.19	189	DYNAMIC LOLA 3B	STEUBE CAN	40-26	VERSITEC	THORP
7	JOHN CUKRAS	MURA	8.43	153	DYNAMIC LOLA T70	TEAM CUKRAS	-25	MURA	MURA
8	LEE GILBERT	INDEPENDENT	8.42	55	RUSSKIT ELFEN	TEAM CUKRAS	-25	MURA	MURA



Scene of the action for the MCS/USRA Western States Championships was this very challenging road course at Ray Wallace's Checquered Flag Raceways in Inglewood, California.



Doug Henline had the quickest car in qualifying with the unreal power coming from a Bill Steube-modified Mura motor. Doug used Associated tires to power his Dynamic Lola.

someone was gaining on him! Charlie Nelson had started on the slower lanes and had now moved to the faster lanes as Steube was moving to the slower lanes. During the seventh heat Charlie had closed the gap to less than half a lap! A couple of crashes by Mike put Charlie into the lead on the final lap of the seventh heat. During this fantastic racing there was an equally tight race going on for third place. Bryan Warrmack and Chris Vitucci battled through the whole main with the two of them less than a lap apart for 100 laps. Talk about pressure! It must have

been great because on the last heat Vitucci hooked his controller up backwards and lost half a lap. The pressure was also mounting for first place. In the final heat Charlie and Mike were less than a lap apart. They both crashed a couple of times as the pressure became unbearable but Charlie kept his cool and showed the pros how an amateur does it by winning the big one. It was a full five minutes before the crowd stopped applauding so Ray could announce the results.

It was an amazing enough feat that

Charlie Nelson beat the pros, but that's only part of the story. Charlie is only 15 years old! He built his own chassis, he wound his own armature for his Champion 517 motor and—get this—he balanced it on razor blades!! If he ever finds out there's a guy named John Thorp that diamond trues comms and does a perfect dynamic balancing job, we'll all be in trouble—more so, that is. Knowing a good thing when he sees it, Steube asked Nelson to join the Checkpoint Team, Charlie accepted and now the strongest team becomes even stronger.

FRONT WHEELS	FRONT TIRES	REAR WHEELS	REAR TIRES	TIRE GOOP	GEARS & GEAR RATIO to 1	CONTROLLER	PICKUP
ASSOCIATED	ASSOCIATED	RIGGEN	RIGGEN	STP	COX 4.86	MOD. RUSSKIT	COX
ASSOCIATED	ASSOCIATED	ASSOCIATED	ASSOCIATED	ASSOCIATED	WELDUN 4.5	PARMA RUSSKIT	DYNAMIC
ASSOCIATED	ASSOCIATED	DYNAMIC	DYNAMIC	ICE	WELDUN 5	RUSSKIT	DYNAMIC
MINI WHEELS	MINI WHEELS	MINI WHEELS	MINI WHEELS	UPDOCK	COX 5.1	EMOTT RUSSKIT	COX
ASSOCIATED	ASSOCIATED	ASSOCIATED	ASSOCIATED	MURA	WELDUN 4.8	PARMA RUSSKIT	DYNAMIC
ASSOCIATED	ASSOCIATED	ASSOCIATED	ASSOCIATED	HHP	WELDUN 4.8	RUSSKIT	DYNAMIC
RVM	RVM	ASSOCIATED	ASSOCIATED	ICE	COBRA 4.8	PARMA RUSSKIT	COBRA
ASSOCIATED	ASSOCIATED	RIGGEN	RIGGEN	ICE	COX 4.8	PARMA RUSSKIT	COX

THE KING COBRATM CLUBMAN

Cheap? No,
but it's a winner for
those tough
1/32 scale club
races!



By Robert Schleicher

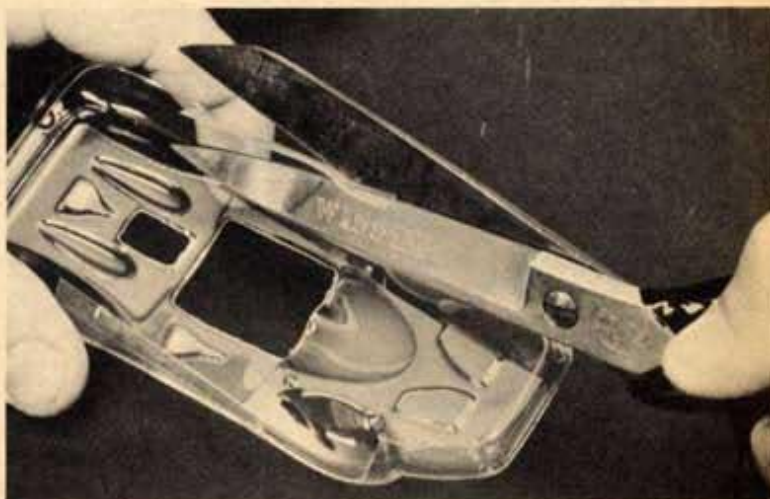
One of the goals of the avid 1/32 scale club racer is to reduce or isolate vibration in his miniature racers. Less vibration will result in less wheel hop which, in turn, will result in faster lap times, which should allow the clubman to reach his dream of winning (or maybe just keeping on winning ahead of the hungry pack) a few races.

For the 1/32 scale fan, at least, the Dynamic No. 450 "Dynaflax" chassis may be a real shortcut in eliminating vibration. Each of the four axle bearings in this chassis are suspended by tiny coil springs. The Dynamic design allows the bearings to move up and down at will, but keeps sidewise movement at a minimum to allow near-constant gear and wheel spacing. The springs allow the chassis to work, smoothing out some of the bumps and jogs of the track; but they also act as effective vibration dampers to keep motor and gear vibrations from reaching the wheels and tires to cause hop. When this chassis is added to the time-proven pan-mount body mounting, a truly worthwhile reduction in vibration is the result. Unfortunately for the newcomer, a couple of precisely placed No. 43 holes must be drilled in the chassis and tapped to accept a No. 4-40 thread. A matching pair of No. 33 holes must be drilled and then countersunk in the brass "pan." A not-so-bad alternative to this is to simply glue the brass "pan" to the bottom of the chassis with Pliobond. The rubbery layer of Pliobond will aid in stopping vibration and, if the body mounting screws can be kept slightly loose (Pliobond on their threads helps), then little is lost over the ultimate combination of Dynaflex frame AND loose-mounted "pan" and body. If all this has you really scared, order one of Midwest Model Road Race Products No. 1005 non-Dynaflex Dynamic chassis with a brass pan already mounted "loose"—all you add is motor, wheels, tires, axles, gears, and pin-mount clear plastic body. The ready-to-run No. 1005 chassis is \$3.49 by mail, from address in "Bill of Materials."

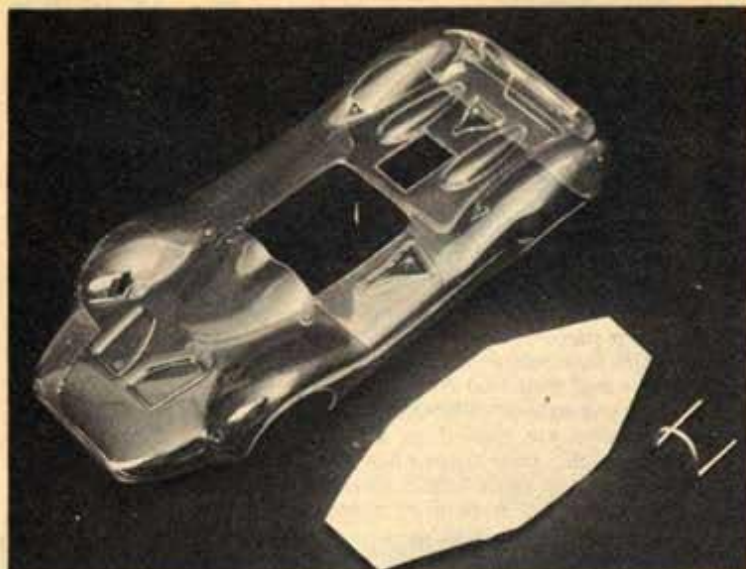
A word may be wise for you newcomers regarding that lead (actually a lead alloy used by typesetters—you can often get it free if you ask a printshop in just the right tone of voice) body mounting bracket. Most 1/32 scale club racers find that a car weighing between four and five ounces handles the best. Even with the brass "pan," you'll find that lead must be added to bring the weight up to optimum handling. The edges of the "pan" just in front of the rear tires are the best place to mount extra weight, so why not combine that extra weight with a body mount? It IS a fine handling car. If you're a serious 1/32 scale club racer, you should investigate Dynaflex, at least for the front axle, before you look elsewhere in your search to eliminate vibration-carrying elements.



Lancer has done a beautiful job of duplicating the difficult wrap-under of the sides of the King Cobra body, but they're too narrow to fit the popular 1/32 scale "pan" chassis. Pull them out.



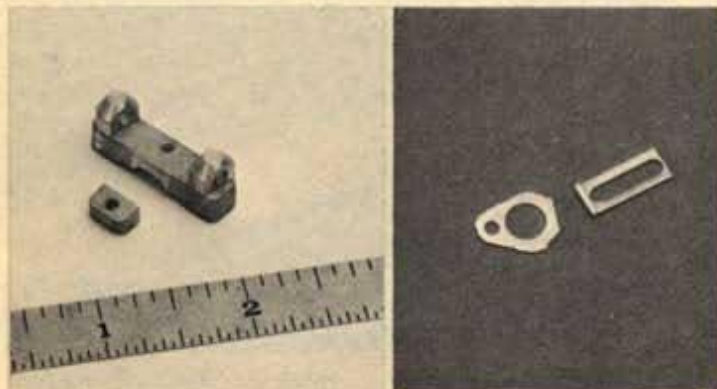
Hot water can be used to help permanently straighten body sides. Trim off about 1/8" of each side after each is straight.



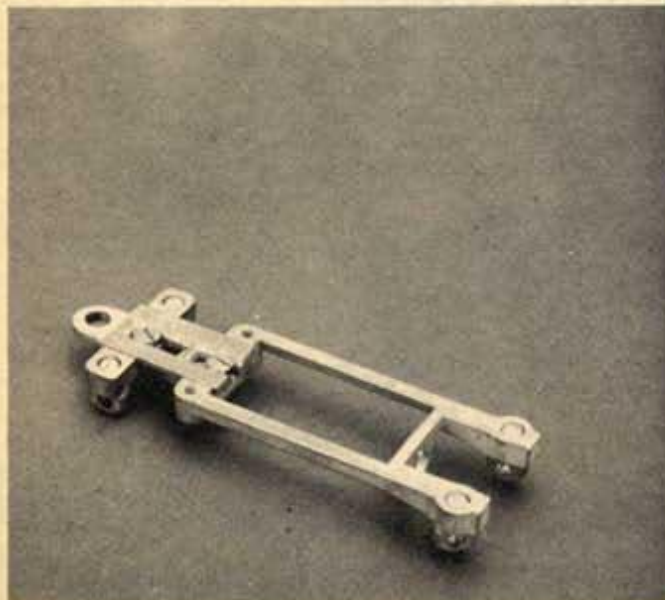
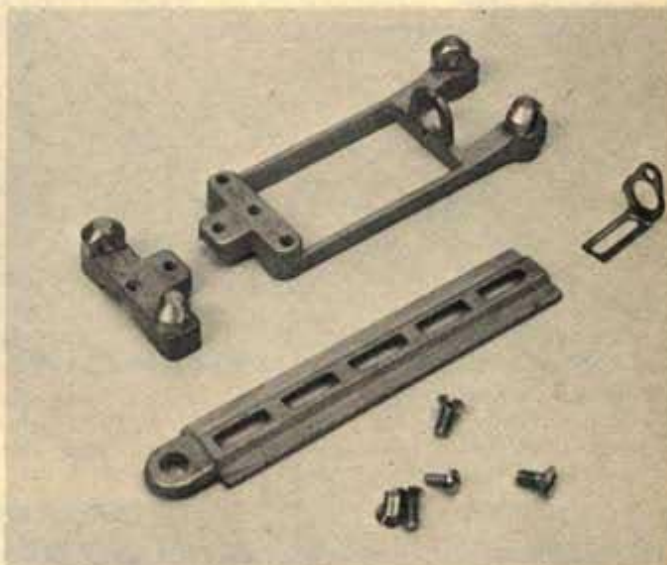
Rollbar is formed from a paperclip. The interior piece is cut down in size and driver head glued on. Cut out cockpit. April '68 MCS featured photos of real '67 version of King Cobra.



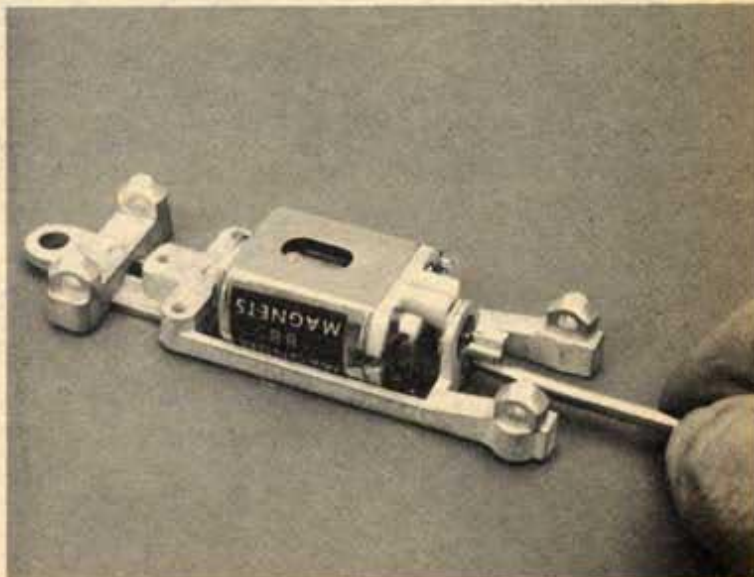
All decals are from the new Auto World 1/32 scale decal sheet except the numbers on nose and right side—those are old Auto Hobbies "American" style, now obsolete.



Dynamic's Dynaflex frame features coil spring suspension at each corner PLUS a design that accepts ANY 16D Mabuchi motor. Tab on front axle bracket must be cut off with a razor saw to allow the short wheelbase of 1/32 scale cars. To fit the '68 Mabuchi with shaft on the endbell end, the brass bracket in the Dynaflex kit must be cut as shown.



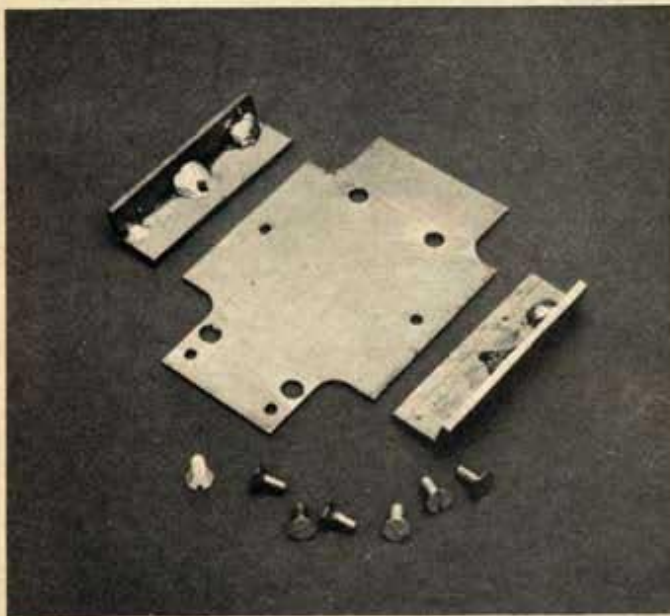
Dynamic pickup tongue is shortened at the notch shown in photo and chassis is assembled with wheelbase to fit body.



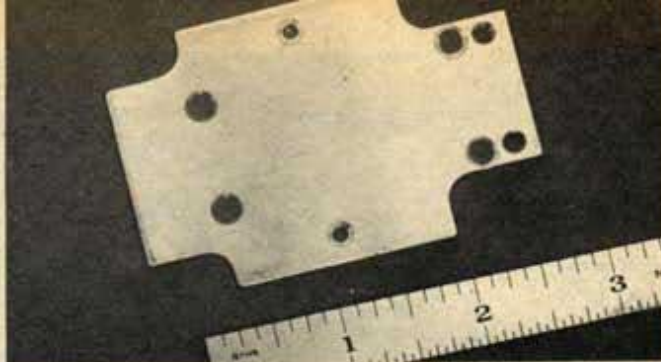
A single screw holds motor to chassis. Modified brass bracket is sandwiched between end bell and frame with the screw through its smaller hole.



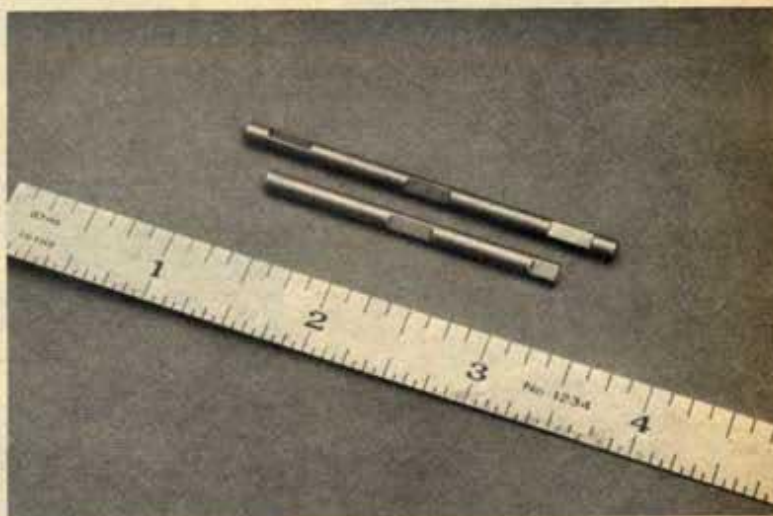
A piece of 1/16" x 3/4" x 1 1/2" printers lead is sliced into a 1/4" and a 1/2" piece as in left view. Cut second piece same. The two pieces of lead (1/4" & 1/2") are held in a right angle and joint soldered to make an angle-iron-shaped piece of lead.



A single hole is drilled in the lead angle brackets you made from the 1/16" x 3/4" x 1 1/2" lead pieces. Drill No. 43, and the No. 732 Dynamic No. 4-40 screws will cut their own threads in the soft lead.



Cut a piece of .040" brass as shown, drill, and countersink -OR buy one of Midwest RR Products No. 1001 98¢ brass pans and drill two No. 33 holes and countersink them just in front of rear "Dynaflex" holes. A matching pair of No. 43 holes are drilled in EXACT center of Dynaflex rear frame rails, then tapped No. 4-40. If drilling is too much for you, simple pan, with only two holes in outer edges, can be Pliobonded to bottom of chassis and motor.



Cox axle will have to be shortened to 1-7/8" by removing an equal amount from each end with a hacksaw or razor saw. Be sure to file away any cutting burrs.

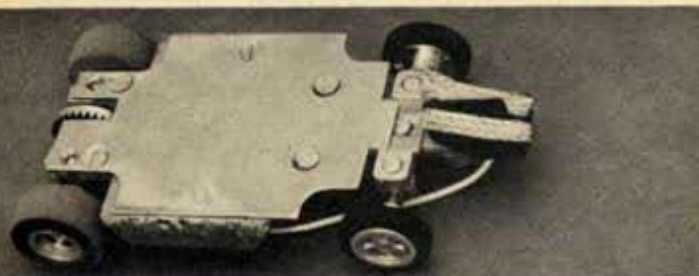
BILL OF MATERIALS

1-No. 450 Dynamic Dynaflex frame kit	\$2.98
1-No. 658 Dynamic guide shoe	.49
1-No. 889 Dynamic 33-tooth crown gear	.49
4-No. 732 No. 4-40 flat head machine screws	.10
1-No. 1001 Midwest Products brass pan**	.98
1-No. 666 Tradeship 6-tooth pinion gear	.20
1-No. M-144S Mura "Magnum 88" motor*	12.50
1 pr. No. ??? Rigger 7/8" x 3/8" set-screw	
wheels and grey tires	1.25
1 pr. No. 510-14 Rigger extra-hard	
set-screw front wheels and tires	1.25
2-No. 4670 Cox axles	.70
1-No. ??? Champion Concours D'Elegance	
wheel inserts	.25
1-No. 360 Lancer King Cobra body	1.39
2 sets AutoWorld 1/32 scale decals	.78
1-piece 1/16" x 1/2" x 4" printers lead	.00
TOTAL	\$23.36*

*PRICE NOTE: Hand-wound (by the model builder). Mabuchi motors of 1968 design may be substituted at a cost of \$3.00 plus your labor to reduce car cost of \$14.86.

**Builder may cut, drill, and countersink his own .040" brass "pan." No. 1001 pan may be ordered by mail for 98¢ plus 25¢ postage and packing, from Midwest Model Road Race Products, 704 Wellesley, Royal Oak, Michigan 48067.

The Official Voice of NAMRA-HOCCI



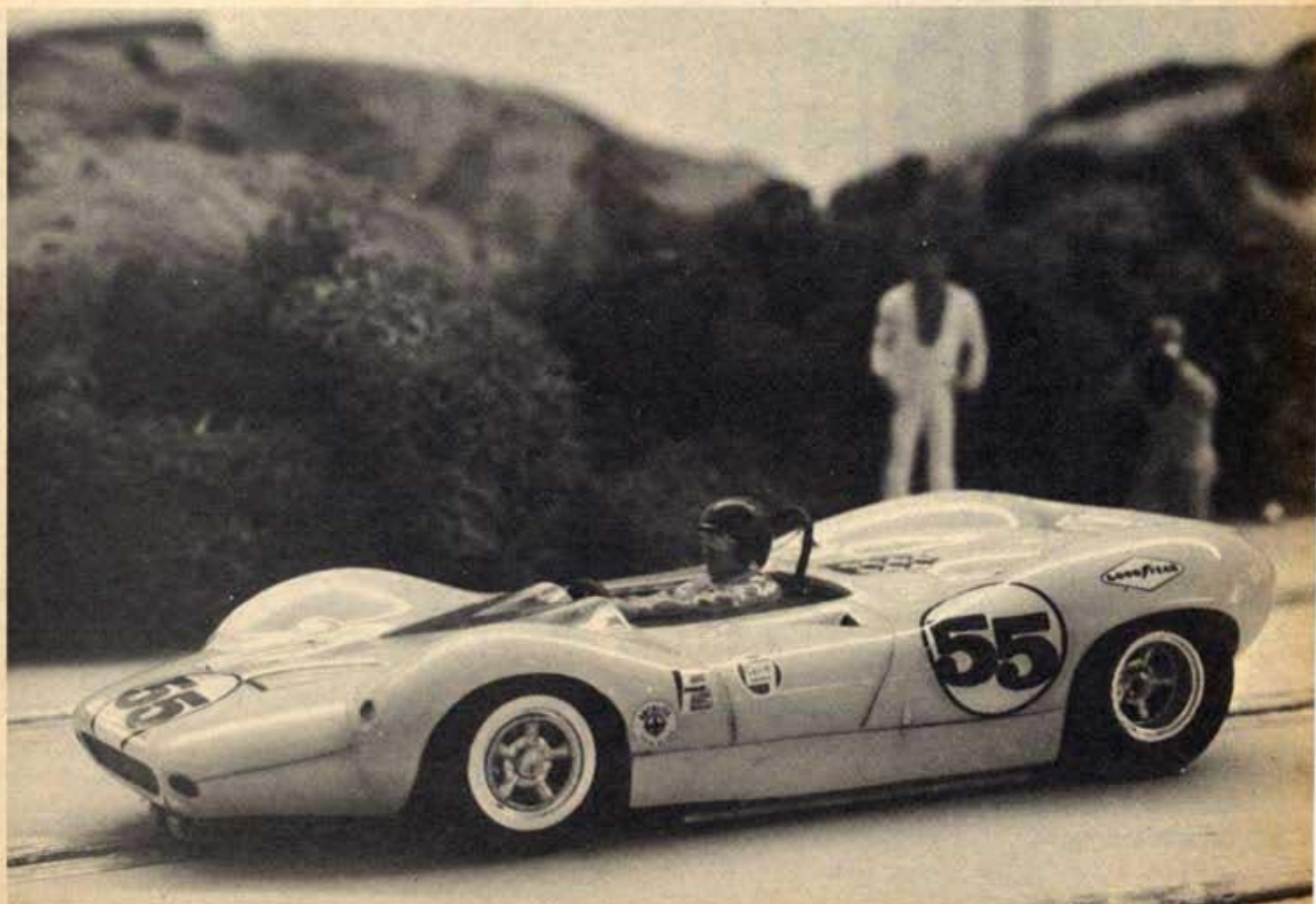
Brass "pan" is held to chassis with the No. 4-40 screws. Screws "bottom" out on chassis before they can grip edges of their holes in brass pan leaving pan free to rattle under car-reduces vibration, hence less hop.



Foam rubber foot pads (from any drugstore) with self-adhesive backs are cut into $\frac{1}{2}$ " x 2" strips and pressed to lower edges of each side of body. Foam (with body attached) is then epoxied to the lead "angle iron" pieces to hold body to chassis. Masking tape can be used to hold body to chassis while epoxy cures overnight.



Check chassis on a perfectly flat test block to see that all four tires touch the track, and that there is ground clearance. Loose pan mount leaves only about $1/64$ " beneath lowest point. If not enough, the Dynaflex bearing blocks can be filed where they touch chassis.





PSYCHEDELIC SURFER

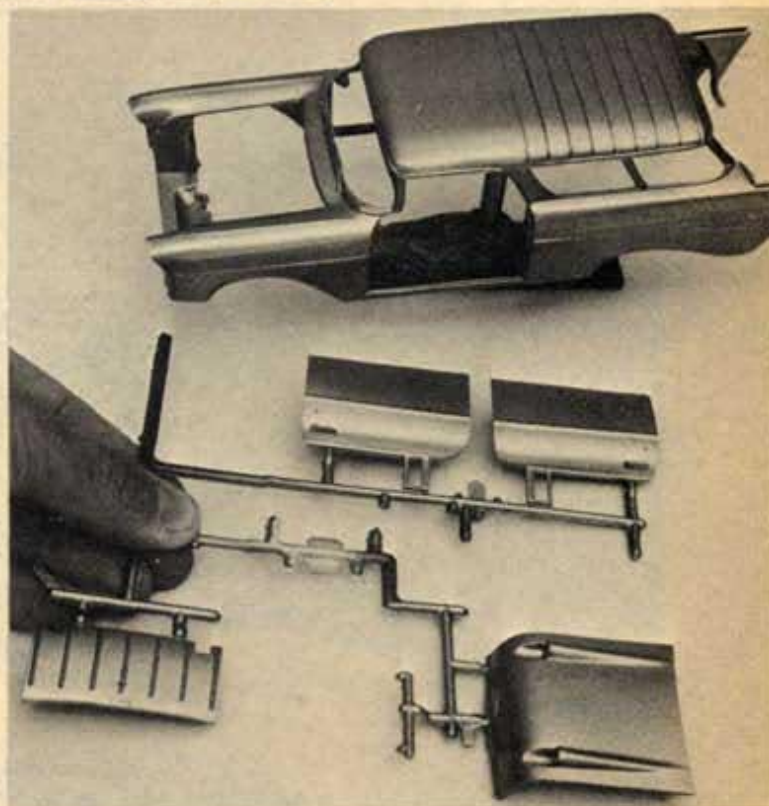
By Robert Schleicher

Revell's new Nomad is the wonder wagon of all time!

If you had to choose THE wildest surf wagon ever, there's little doubt the neo-classic '57 Chevy Nomad would be the car you'd pick. Why not? Chevy based the styling of the car on a show-only Corvette with the same basic top, and the rest of the car is that ever-lovin' '57. With ancestors like these, the Nomad had to be a winner.

We aren't sure why you had to wait 11 years for a kit of the car, but it IS here now and it's a beaut! Revell has spared no detail to make the model of the Nomad a classic in model car kits as well as in real life. For \$2 you get the built-in operating tailgate (both the gate and window are hinged), opening doors, opening hood, and a choice of three different suspension settings with two different wheels and two different engine intake and exhaust set-ups. Even the heater ducts and spare tire well are included in this one!

24/Model Car Science

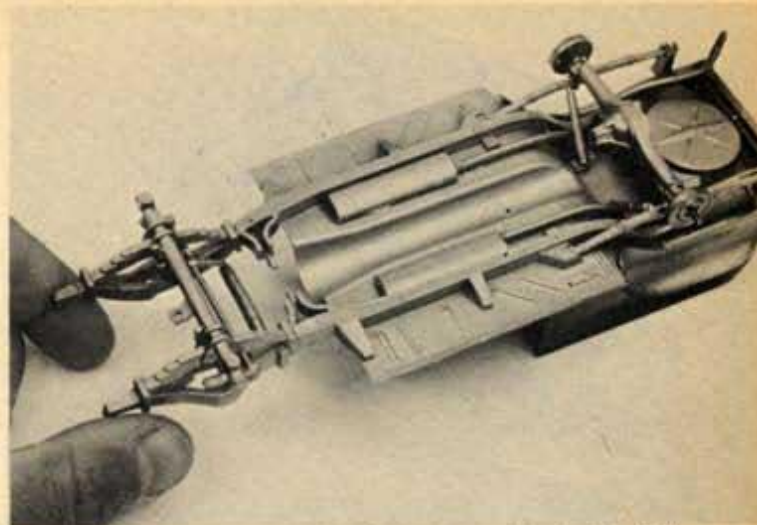


The Revell '57 Nomad can be found at any hobby store, but you may have to search a few stationery stores to find the Dymo-brand Psychedelic "Put-Ons" stickers. All doors and the hood open, and chassis is fully detailed. It is easiest to paint the hood, tailgate, and doors right on their plastic "tree" at the same time body is sprayed. We started with primer, then gold.

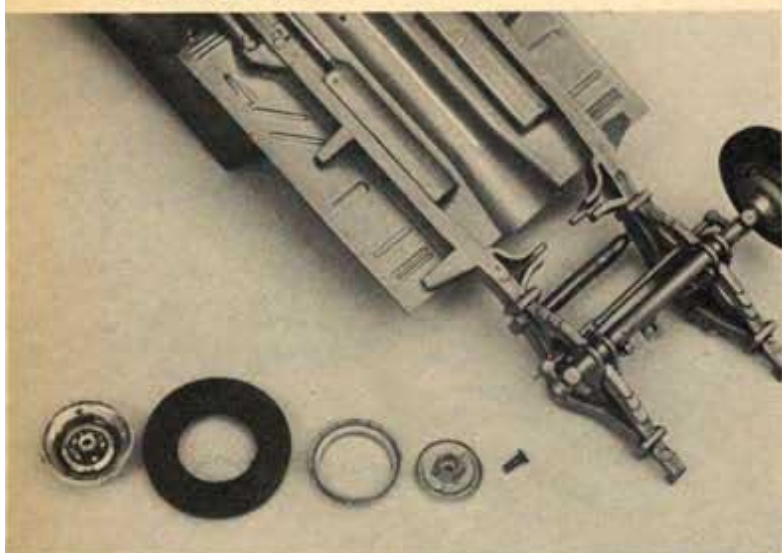
The Official Voice of NAMRA-HOCCI



Engine can be spray-painted red before chrome bits are glued on. Later details like fan, starter, distributor can be detail-painted by brush. Fuel injection is shown here, but six carbs are optional.



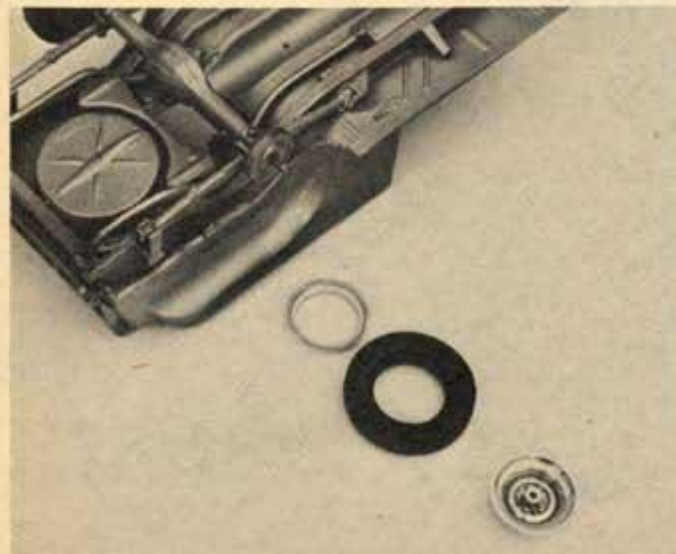
Chassis is assembled per kit instructions with the "tube" axle suspension option. Cross piece behind axle must be removed to fit engine.



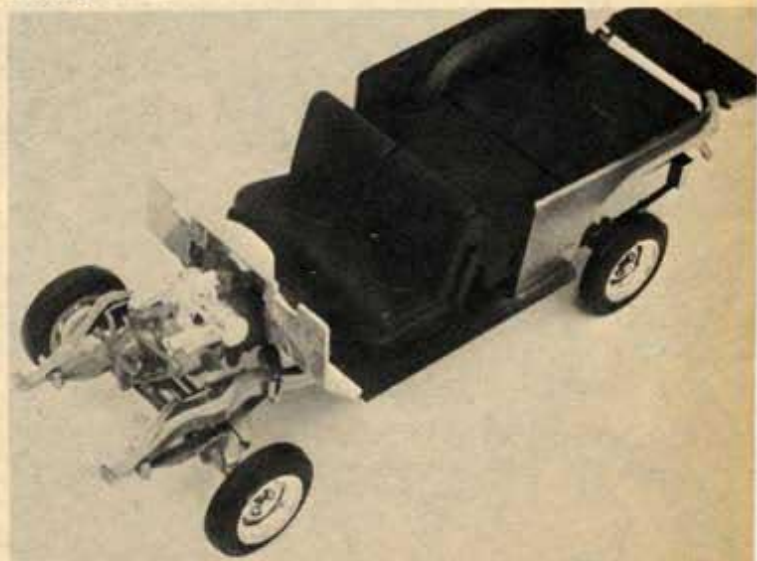
Reverse chrome wheel option is chosen. Note that the chrome half of wheel is on outside of car, with painted rim inside.



Rivet is pressed into brake backing plate to hold front wheels to brake. Brake is then glued to axle, leaving rotating wheel.



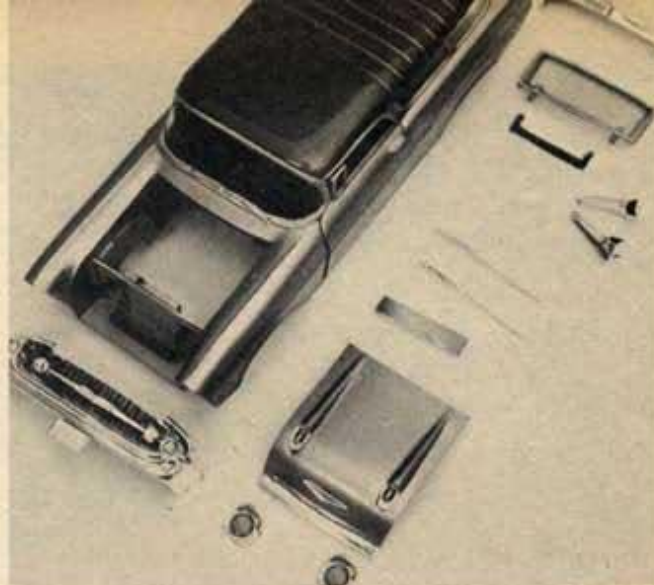
Same wheel assembly sequence is used at rear with chrome on outside. Wire axle allows both rear wheels to rotate as unit.



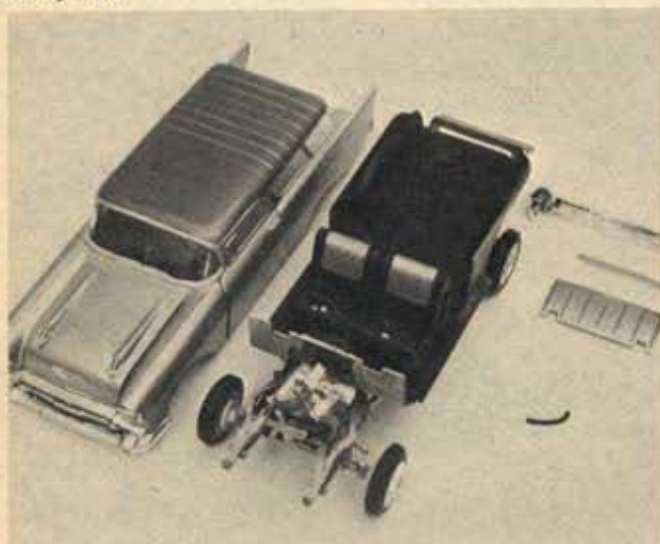
Interior and engine are added to chassis at this point. Modeler has choice of either raised or folded (shown) rear seat.



Most Nomads are two-toned. Car should be masked so that side pillars are painted same color as top, Testor's No. 7R Candy Red.



Chrome trim must be painted on around windows, but separate pieces are furnished for genuine chrome fender tops, tail lights.



Body and chassis are major assembly units, with tailgate, tailgate splash pan, rear bumper and radiator hose final detail bits.



Toothpick props hood open, tailgate will stay up by itself.



Dymo-brand "Put-Ons" are merely stickers that can be pulled free from backing sheet and pressed in place on car.

26/Model Car Science



Psychedelic stickers add mod look to classic '57 Nomad. Kit can also be assembled with stock suspension parts and wheel covers if you choose to use them.

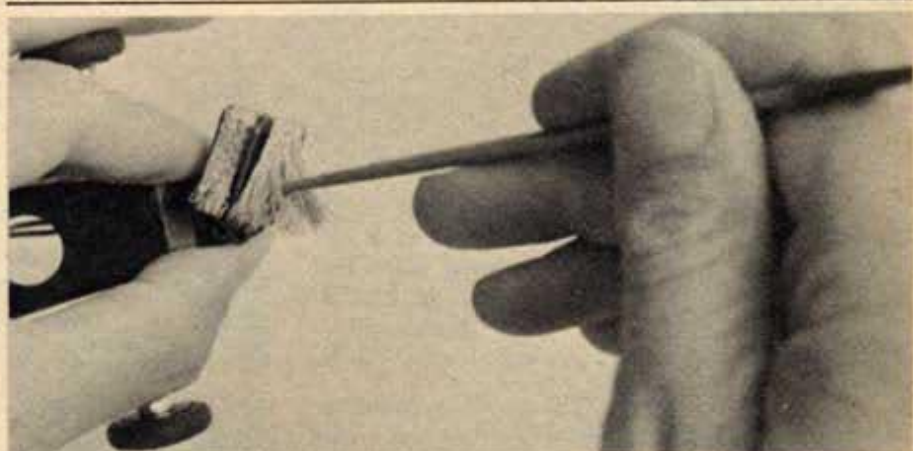
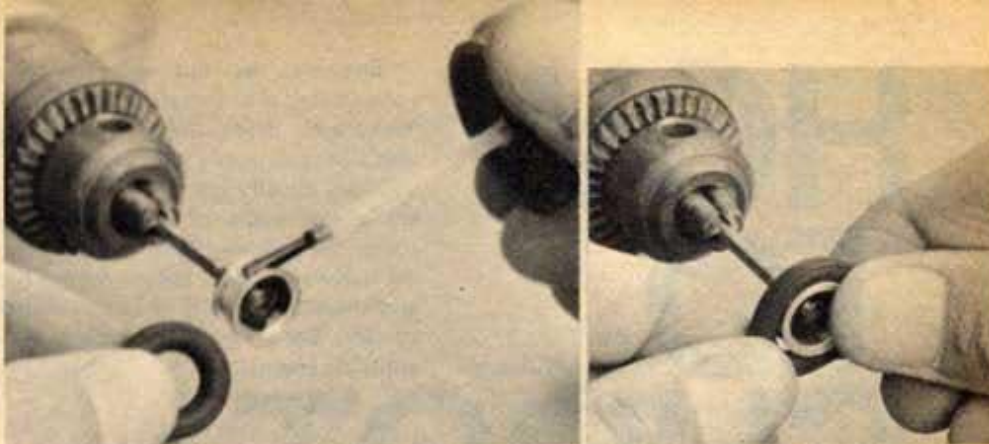
The Official Voice of NAMRA-HOCCI

BACK TO BASICS

Easy modifications
to help you
win races

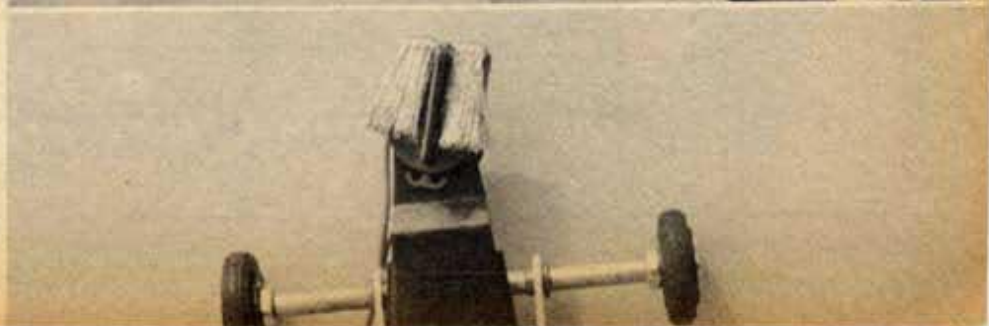
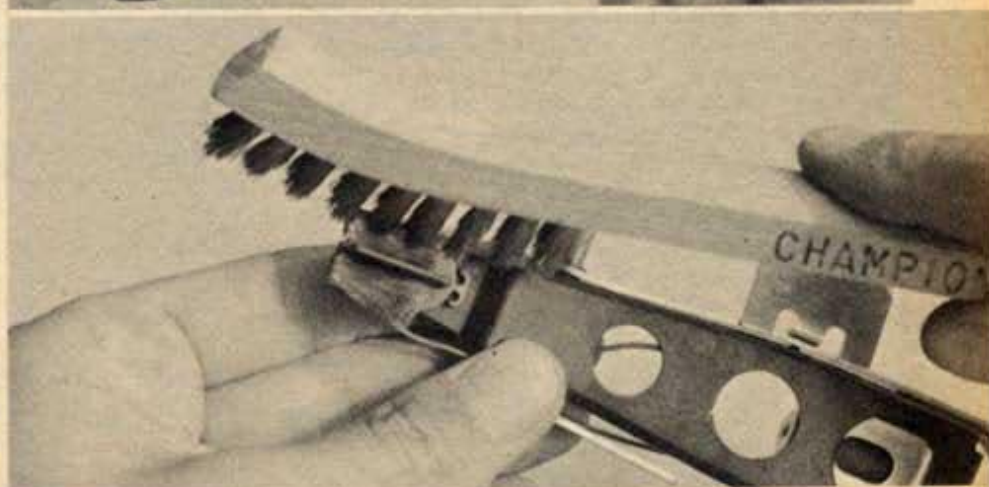
HOW TO ELIMINATE WHEELHOP

To eliminate wheelhop in corners, thread the wheel onto an axle, using a jam nut to secure it, and chuck the axle in a drill. Coat the wheel hub with Goodyear "Pliobond" rubber cement. "Knead" the tire until it sets squarely on the rim. Turn the drill on, and touch a damp rag to first one side of the rotating tire, then the other. This will straighten the tire on the wheel instantly.



HOW TO "SET UP" PICKUP BRUSHES

Stiff pickup brushes have a tendency to "lift" the car out of the slot, making it unstable in the corners. Unbraid each strand with a pointed (but not sharp-edged) tool. Then trim the ends of each brush until they're about even with the back of the pickup blade. Brush the strands smooth with a Champion pickup brush.



HOW TO SHOOT ENAMELS

By
Ben Millsbaugh

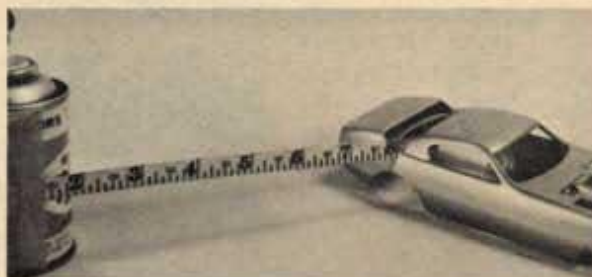
Enamels, as opposed to lacquers, are less complicated and therefore somewhat easier to apply. There is no after-rubbing to get your gloss finish. You don't have to apply successive coats to get depth and you can usually get by with two basic coats. There are several types of enamels for spraying but here again, the process is still basically the same. Enamels do require a much longer drying time than lacquers and therefore should be put in a dustproof container to dry. Let's look at some of the basic points in applying enamel.

THERE IS A DIFFERENCE

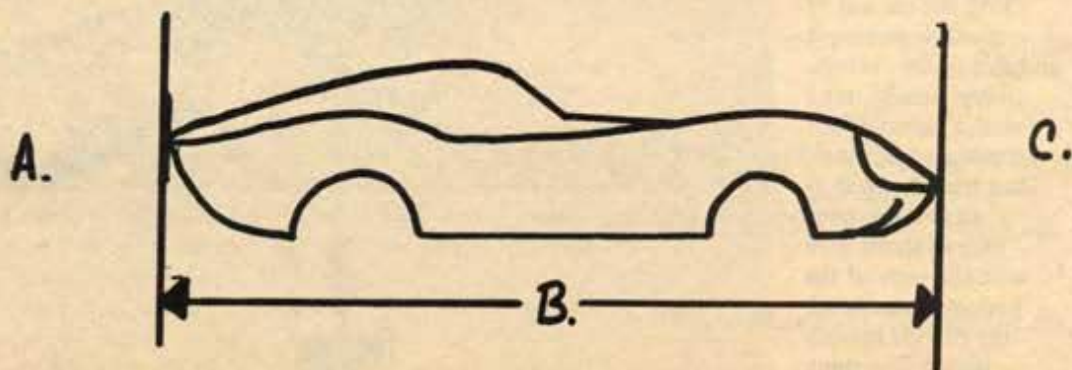


1.) The proper technique for holding the enamel can is as shown. You won't believe this but if you have a large overhanging finger near the opening of the sprayhead, the paint can collect on your fingertip and when the drop becomes large enough, the escaping spray gas will "shoot" the drop onto your car or project. This is sheer negligence and if you are conscious of what you're doing in the first place, the accident won't happen.

2.) The first enamel coat should be shot from a minimum distance of eight inches. Don't go in any closer for the first "mist coat." I have found that heating paint in hot tap water first helps increase pressure and you may have to move 10 inches away for the mist coat. Remember, only one coat at a time.



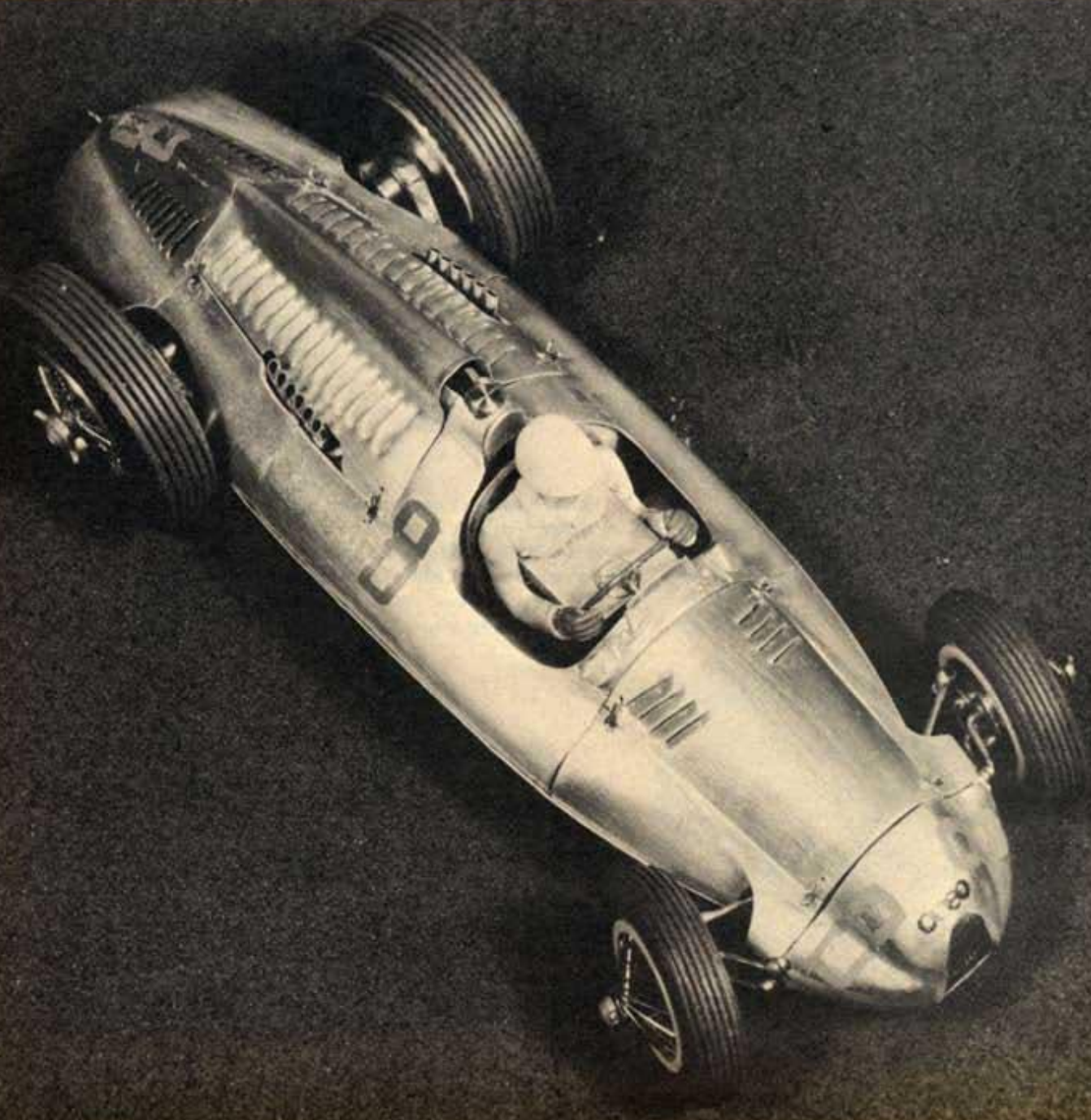
3.) When the painted "mist coat" has dried for about 30 minutes, you may move in to seven inches for a color coat. Make long yet fast sweeps of the side of the car. If you find that the paint is going on too thick, either move faster across the surface or move the can away from the surface. Short strokes beginning before the panel and ending after the panel work best. Start spraying in area "A" and pass completely through area "B" in about one-and-one-half seconds, finishing up in area "C." This gives an even spray from end to end.

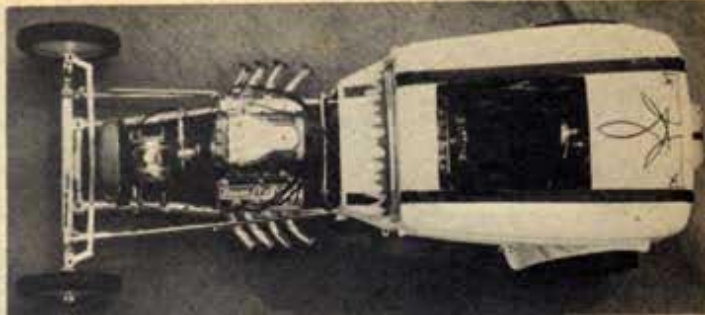
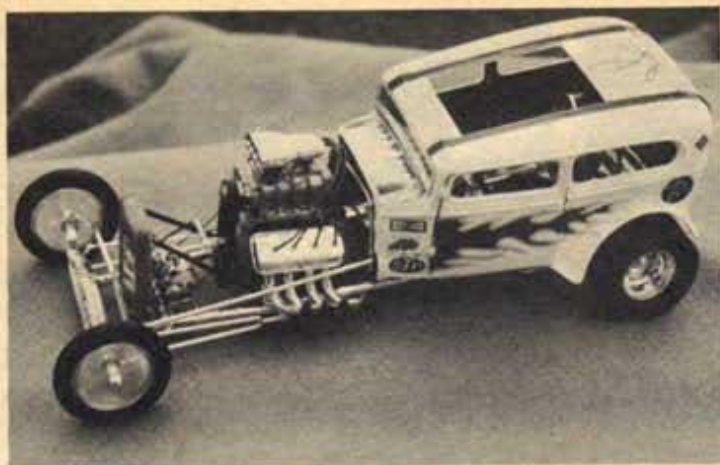


mcs: MODEL OF THE MONTH CONTEST

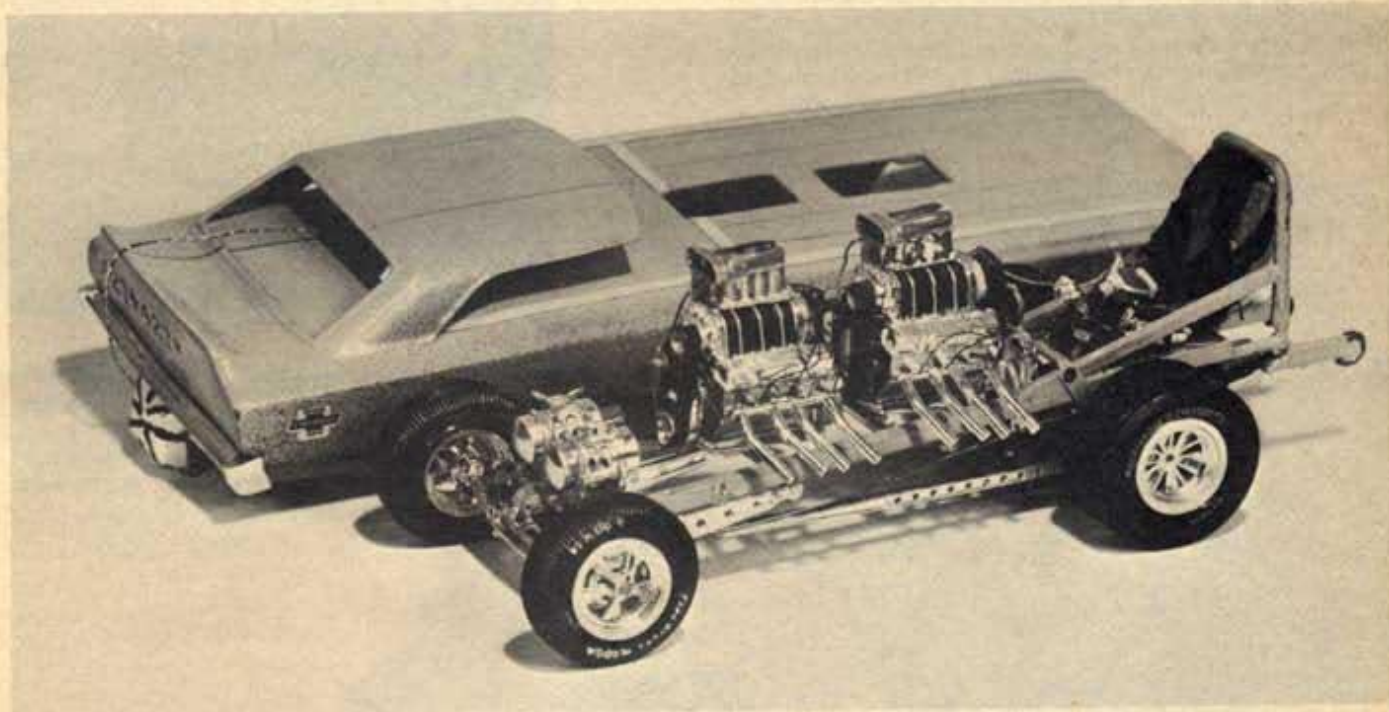


This month's winner is a very unusual car, as it is made almost completely by hand. The car is a 1/32 scale replica of the 1939 German Auto Union, and was built by Michael Shakespear, 529 Burtman Drive, Troy, Michigan. There are over 350 pieces, all of which are handmade except for the tires, gears and motor. The chassis is made of brass tubing, following the exact shape of the real item. Violin wire is used for the torsion bars and there are 14 balljoints in the suspension. The body is made of eight-thousandths aluminum, using the same material as the real car. *Very creative work, Michael.*

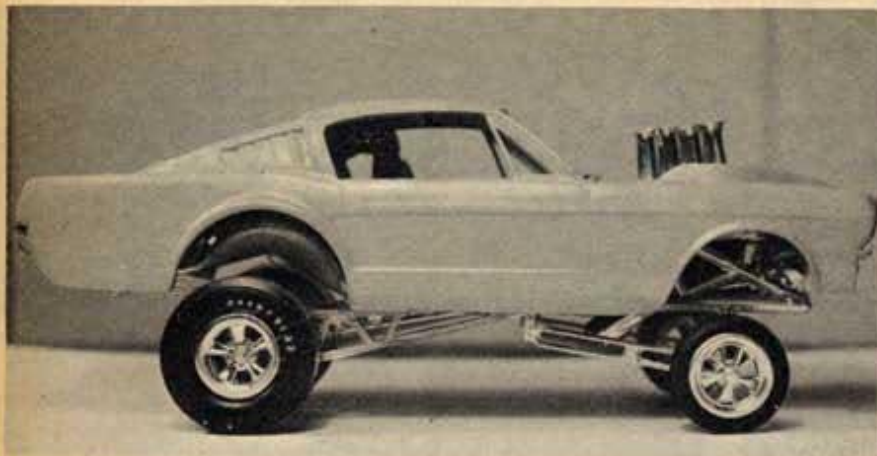




From foggy London town comes blown Chrysler-powered coupe built by Maurice Dredge, Prestige House, 14-18 Holborn, London, England. Built from parts from Revell and Monogram, the wild paint job accents the fully wired blown Chrysler. *Jolly good, mate.*



Would you believe two blown Chevys in one funny car? Well, Mike Miljanovic of 1041 Fennel East, Hamilton, Ontario, Canada, does. It is a combination of Olds F-85, Mustang and GTO. It has fully wired engines and instruments, parachute and brake lines. The paint is light blue metalflake fogged over burgandy and red. *Wild, Mike.*



The "Mad Gasser" has been created by Jeff Buchta, 3231 Rugby Court, Waukegan, Illinois. The 1968 Mustang has three coats of competition orange and chassis is completely silver chrome. Power is produced by 427-cubic-inch injected Ford, fully detailed and wired. *Mad news, Jeff.*



For you cycle fans, Bobby Breland of 116 Greenhill Dr., Vicksburg, Miss., has put together a Grand Prix motorcycle. Built from Revell's Honda Racing Motorcycle kit, this bike is completely wired, with brake and clutch cables and fuel lines and plug wires. *Keep 'em coming, Bobby.*



Are you ready for this? A three-wheel cycle hearse? Built by Angelo D'Ambrosio, 218 Bellingham Avenue, Herkimer, New York. This model has parts from "The Boot Hill Express," "The Haulin' Hearse," and other parts straight from the House of Count Dracula. *Very frightening, Angelo.*

Mirror, Mirror on the floor—Who has the wildest pickup of all? Bruce Pringle of 521 Epsom Road, Towson, Md., has. Built from the 28 Ford pickup kit from Revell, this truck features a blown Hemi from AMT's Don Garlits' "Swamp Rat" and is fully wired. Paint is five coats of lime gold metalflake. *Most reflective, Bruce.*

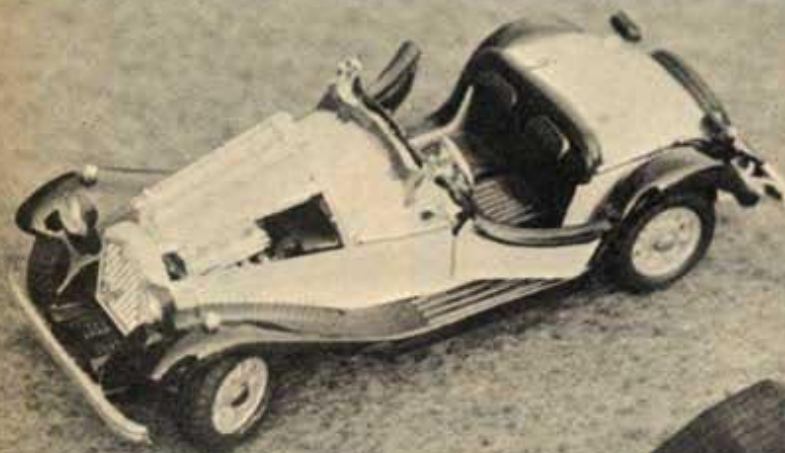


MAIL ORDER ZAGATO

Miniature
collectors cars
are IN!

Miniature collectors cars are IN, and a complete line of these little wonders is available from Sinclair's Auto Miniatures, Dept. MCS, 3416 West Lake Rd., P.O. Box 8086, Erie, Pa. 16505. A brand new catalog featuring these magnificent model cars can be yours for just 30¢ or five new six-cent stamps.

One of the super-detailed miniature cars from Sinclair's mail order house is a 1:43 scale Alfa Romeo Grand Sport Zagato. Nearly everything works, as you can see in the photos, and the finish and workmanship on this Italian Politoys model is simply marvelous.



The Politoys Alfa Romeo Grand Sport Zagato (Model No. 273-532) is a magnificently detailed miniature collectors piece. Doors and hood open, engine is detailed, windshield folds, wheels have wire spokes and, in addition, it is the only 1:43 scale miniature which features actual steering. And would you believe, the rear suspension is really functional! All this for just \$5.00.

the **1969** CARS are HERE

FROM



1969 CORVETTE
STING RAY

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All the really great ones!

Like the Charger, GTO, Firebird, Corvette!
Like the Mustang, Camaro, Coronet, Barracuda!

And for the first time in a kit:

The wild new Pontiac Grand Prix.

Only from MPC an all-zap line-up like this!

And only from MPC: The AMX in 1/20 scale!

The super size, super detailed 1/20 scale!

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Hollow slicks, vinyl funny car front tires,

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A complete, absolutely absolute firetruck version!

The great new '69 models are here!

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Now all the great cars are in kits from MPC.



**KEEPS RIGHT
ON HAPPENING**

Before this new double-kit (futuristic carrier-truck and dragster) arrived, the model kit field had lagged far, far behind the real life racers—no really new-style dragster kits had been offered literally in years. The Ramchargers model by MPC is very up-to-the-minute in all respects; it should be, it's a model of the acknowledged fastest dragster in the world, the same car that World Champion Bennie Osborn pilots to those under-seven-second and low 220 mph times at meets across the country. MPC has duplicated the Ramchargers car with some of the most delicate and accurate plastic moldings in a model car kit. The dainty appearing front frame and suspension of the real car are faithfully copied, with ALL of the track rods, braces, axle, weights, etc. AND motorcycle-type front wheels in chrome-plated plastic. A full set of decals for the candy cane stripes of the real car is included, as well.

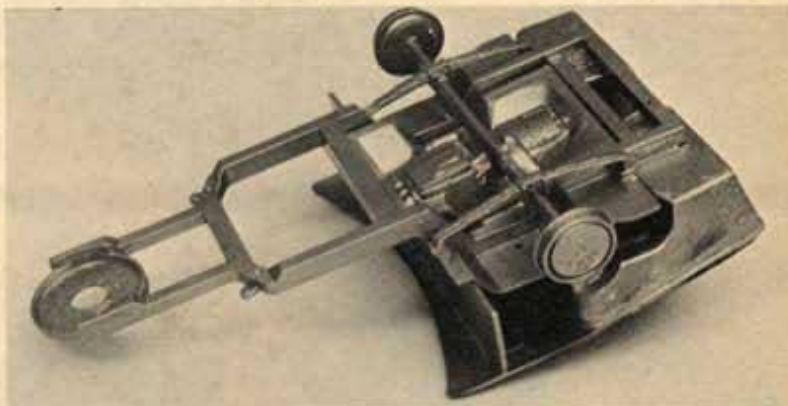
One of the hidden benefits of this kit is its adaptability to other famous dragster designs in miniature. A clever

modeler could substitute an engine or modify the body panels (or leave some of them off) to duplicate almost any of the Ramchargers' fuel class competitors including the Garlits car, the Shelby Super Snake of Don Prudhome, "Greek" Karamazines' Chizler, and you-name-it. You could build a whole shelf-full of the world's fastest quarter-milers from a series of these Ramchargers kits!

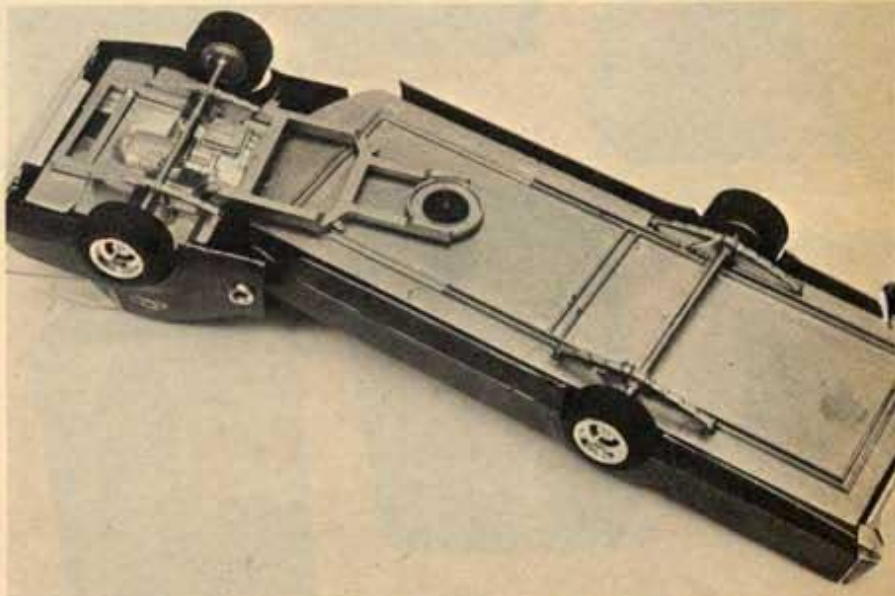
In your excitement over a real modern dragster, don't overlook that wild and way-out transporter that is included in the Ramchargers kit. This one is worthy of a kit of its own, with a unique cantilever-pivot type of steering where the entire body pivots in the middle to negotiate a corner. The kit features this operating transporter with fully detailed suspension, operating tailgate and lift-up front window—it makes one of the most beautiful display stands imaginable for the Ramchargers car. The combination of both kits, the Ramchargers dragster and the transporter, is designed to sell for about \$3.00.

MPC'S DEVASTATING DRAGSTER

The first new and accurate top-money "fuel" class dragster in years—it's the World Champion Ramchargers car!



Separate each part from its "tree" and trim away any scrap. Assemble cab chassis with interior. Paint interior a color of your choice, chassis can be silver or gold. Note suspension.

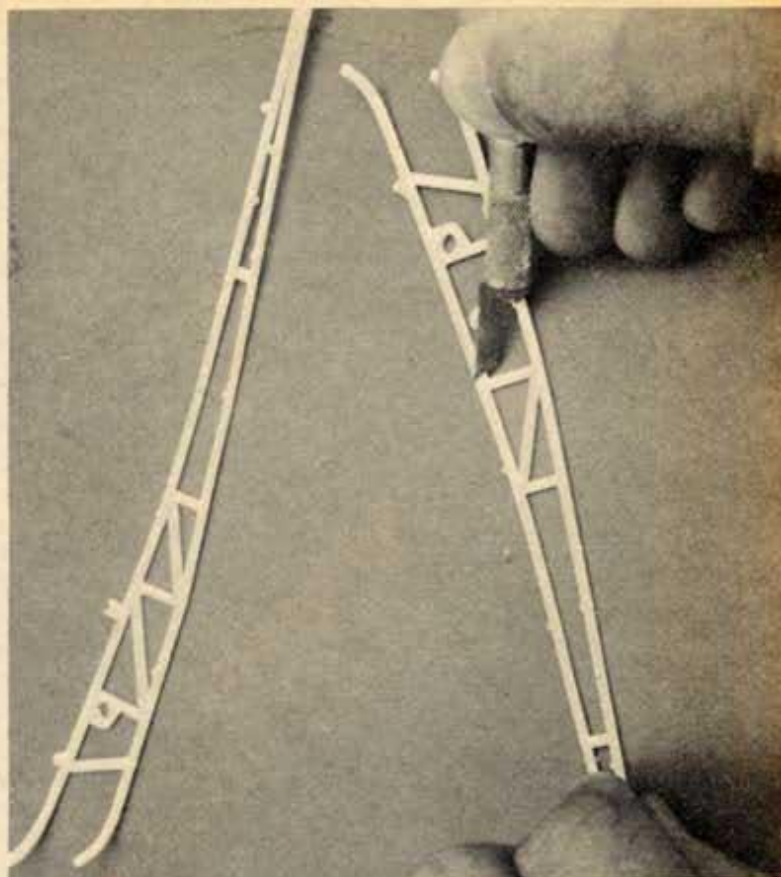


Balance of transporter is completed per kit instructions. Black pad is glued in place as pivot between halves of truck. Unit is "steered" by pivoting rather than by turning individual front wheels. A way out design in both engineering and looks.

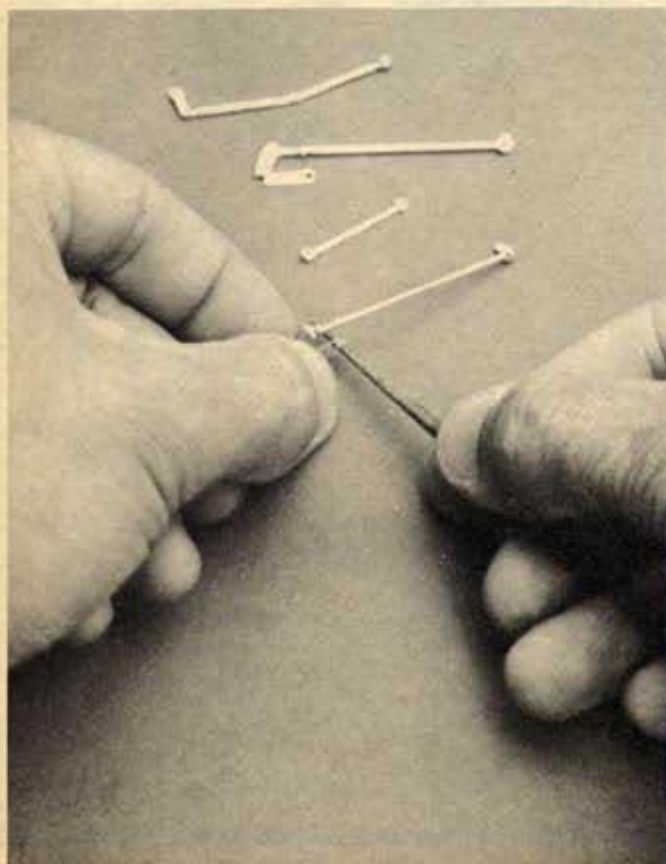
Spray cab exterior, tailgate and trailer portion of transporter a dark metallic to highlight pinstripe decals from kit.



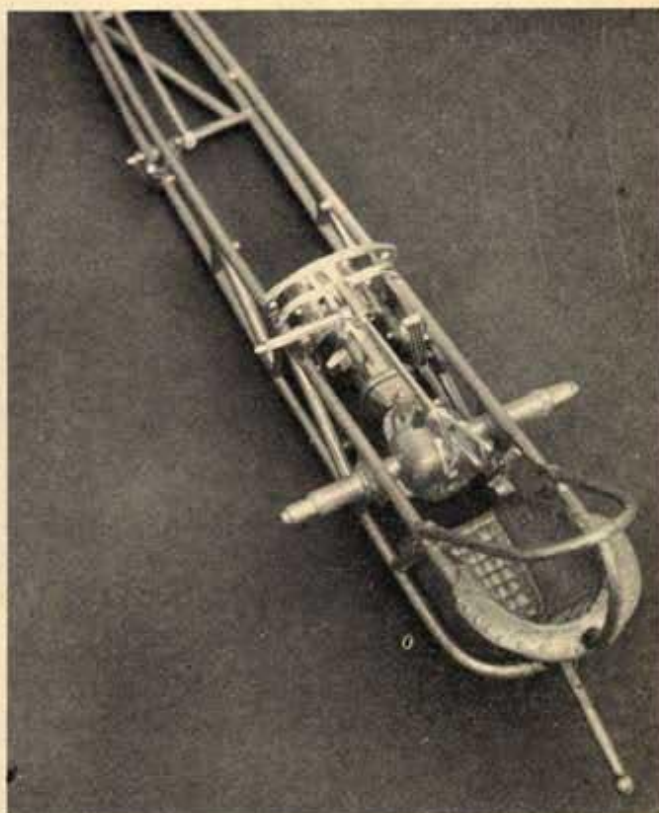
Top-side of transporter reveals how pivoting steering looks to the outside world. That's one beautiful truck.



Begin work on Ramchargers dragster by studying instructions carefully and test-fit all chassis parts, then trim off all unneeded "circles" left by mold.



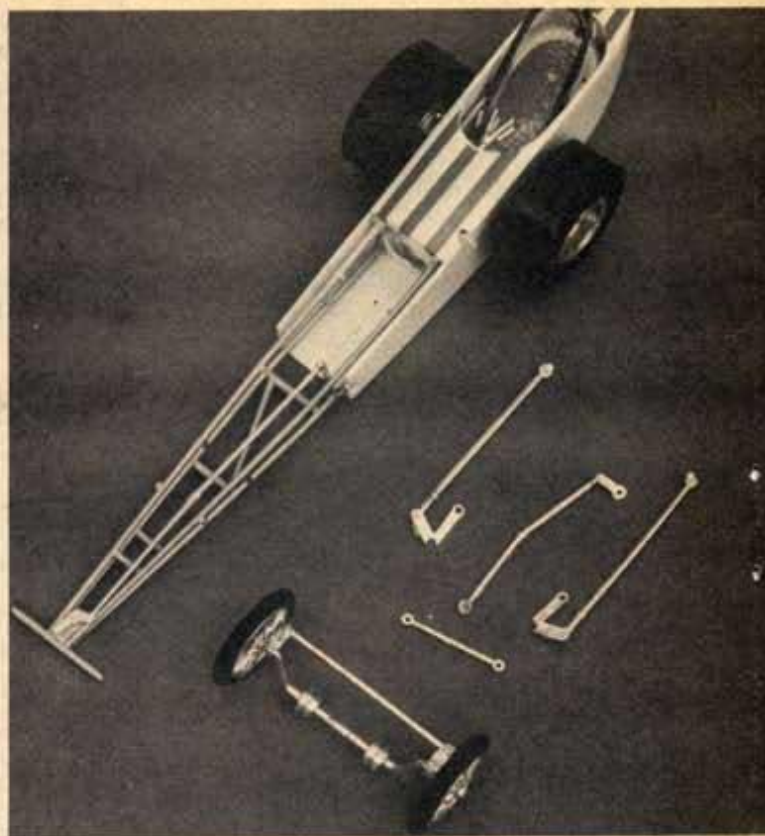
Use a jeweler's "needle" or round file to open all the holes and pockets in chrome suspension pieces. Be careful.



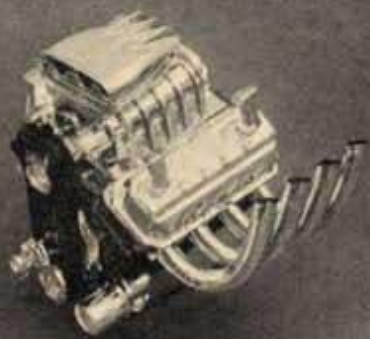
Assemble chassis per kit instructions to this point, allow glue time to dry, then spray-paint silver or dark blue. After paint dries, the interior chrome parts such as steering assembly, gas and brake pedals can be glued in place.



"Solvaset" is a must to soften nose decals so they will conform to shape of nose. Apply, wait five minutes, then press decal.

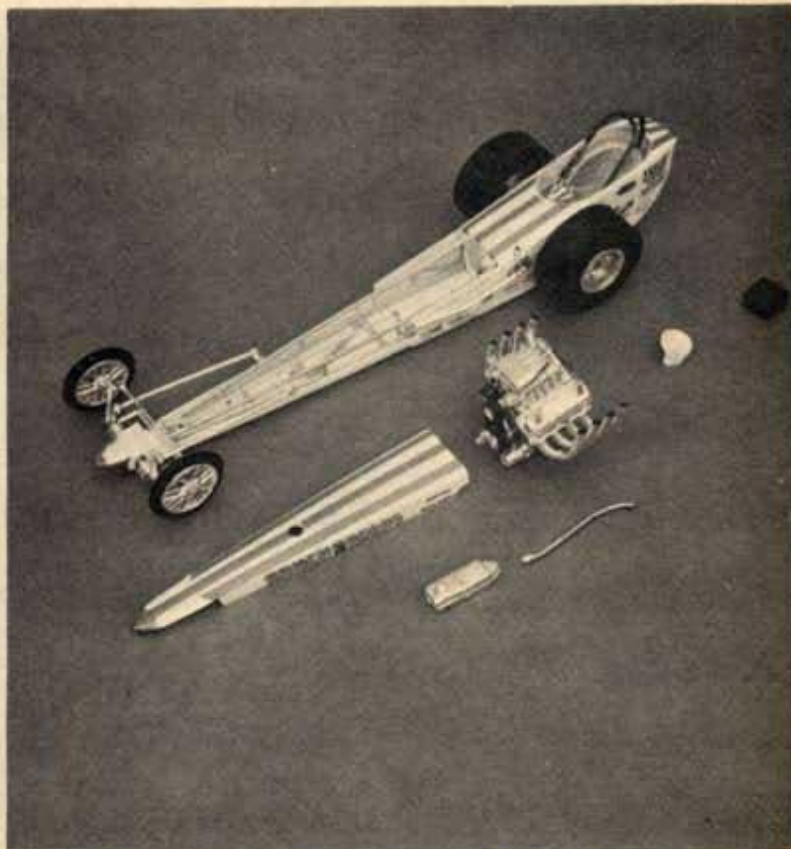


Glue cockpit pieces of body to chassis before applying decals to them. Note that rear wheels go on after body. Assemble front axle pieces and wheels before gluing axle unit into frame and adding loose links, shown here.



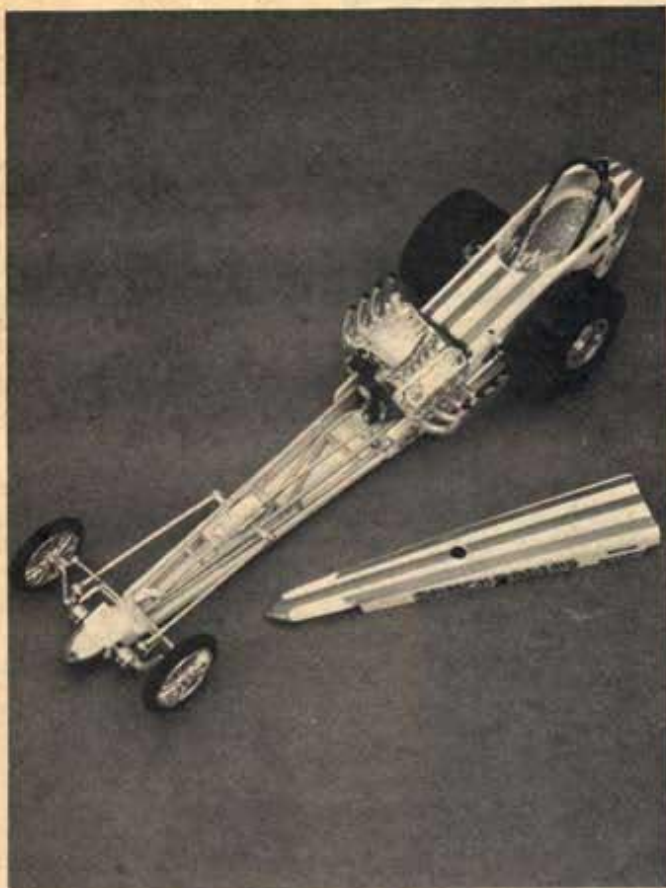
Engine is assembled following kit data. Ends of exhaust pipes and timing belt should be painted flat black.

38/Model Car Science

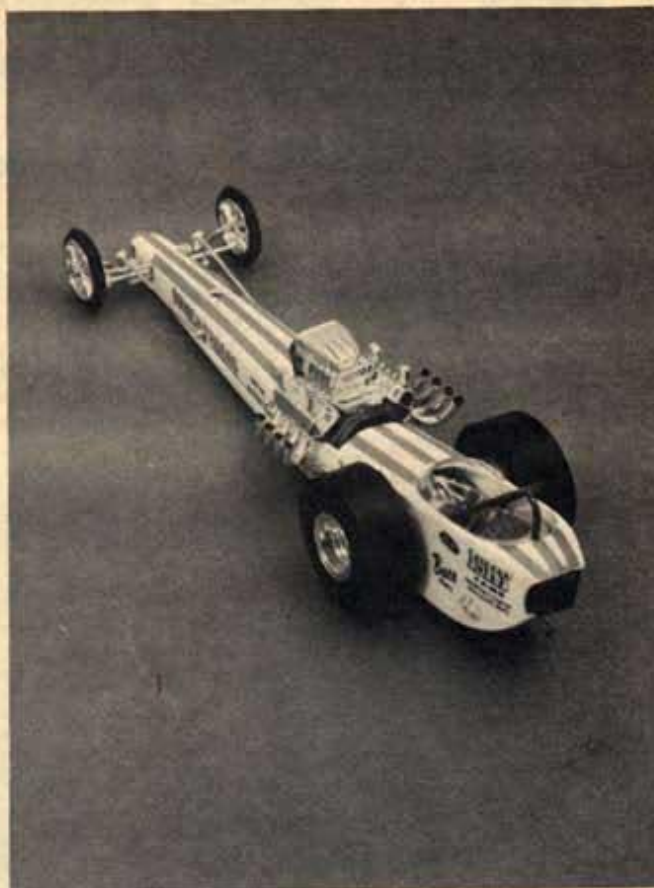


Engine, gas tank, gas line and parachute should be last pieces to be glued in place. Top front body panel and crash helmet can merely rest in place without glue.

The Official Voice of NAMRA-HOCCI



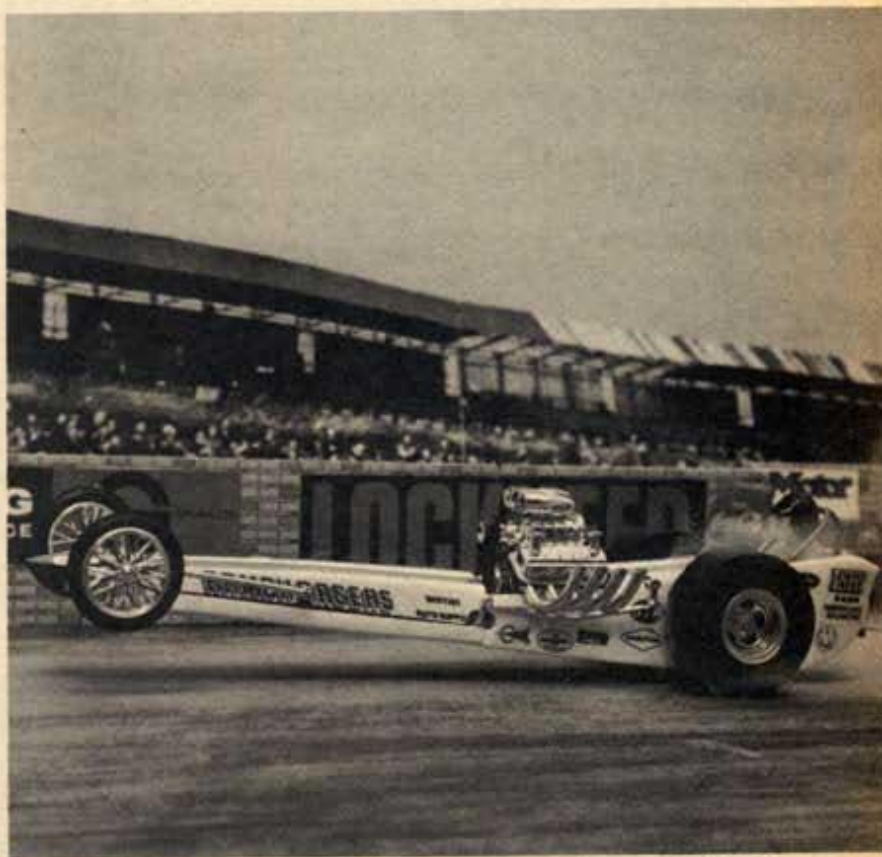
Ramchargers car can be displayed with front panel off or on. Built-in lugs hold in place without glue when desired.



MPC's 1/25 scale Ramchargers dragster kit builds up into a beautiful and authentic model. ALL markings are in kit.



Transporter truck, furnished in every Ramchargers kit, makes an excellent model that doubles as a display platform for Ramchargers dragster.



Maybe that IS Bennie Osborn blasting off to another World Championship for the Ramchargers. Whatever, it is 1/25 scale realism!

The ULTIMATE in HO Power

Would you
believe a
Mabuchi-Aurora
armature?

Dennis Elliott

Much has been said of late on the subject of rewinding HO motors. I myself have done much of the talking about this ultimate in modifications and I was beginning to fancy myself as somewhat of an expert on the subject. Then Richard Harrison came up with the idea for this new armature and showed me that I don't know anything.

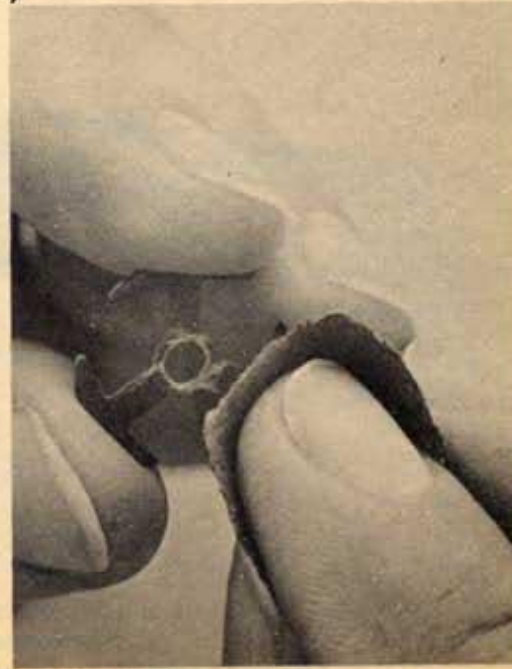
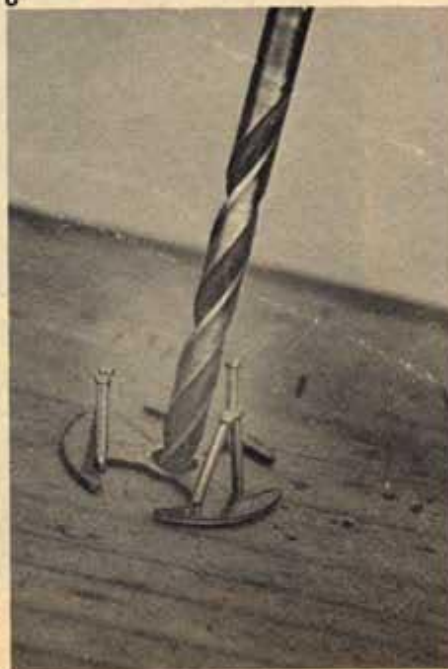
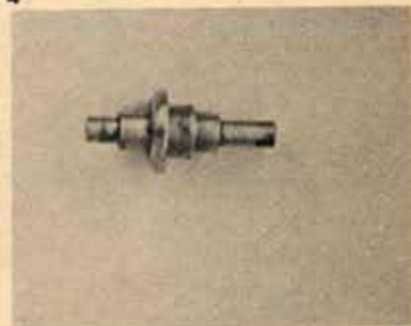
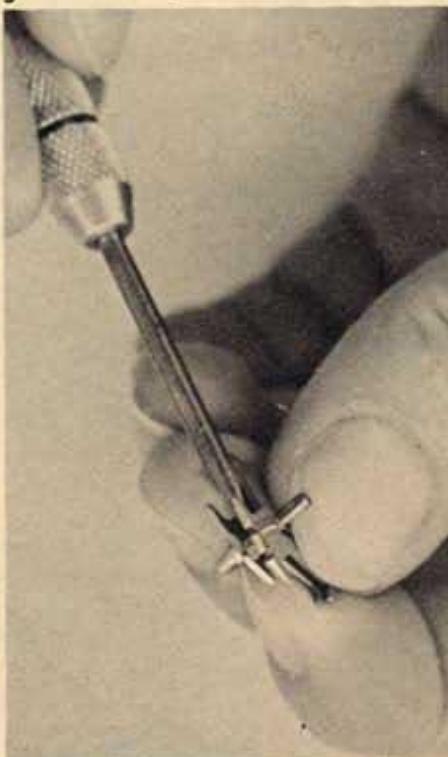
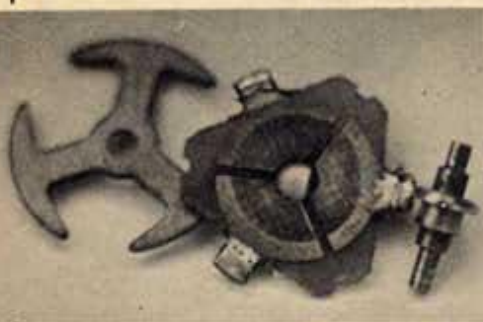
Basically, the arm is a modified copy of a stock T-Jet. The only difference (and it's a mighty important difference) is in the poles. The poles

for our super-modified hauler come from (are you ready?) a 1/24 36-D Mabuchi! The idea is to fit three laminations from the 36-D to a stock Aurora armature shaft to form the basic "rotor." Everything else about the arm is conventional, including the commutator and wiring.

What are the advantages and disadvantages of the arm? Glad you asked, as the former are myriad and there just aren't any of the latter (unless you count the usual rewind heating). It is quite a bit lighter and has much better torque (due to the fact that it has more metal and more of it strategically located for the magnets to work on) than the stock arm.

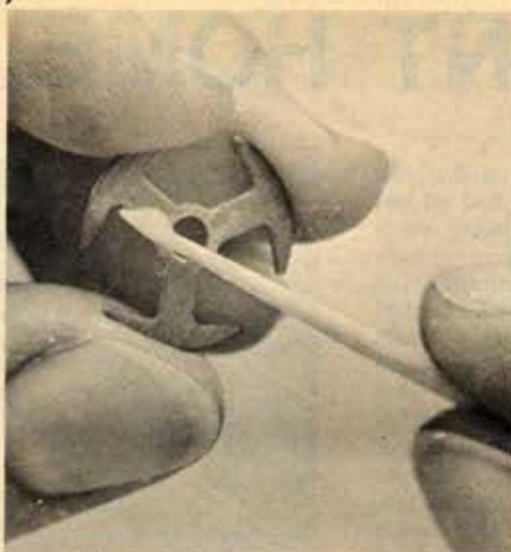
Admittedly, the conversion takes a fair amount of time, skill and special tools, but it is well worth it. This arm is the coming thing and mark my words, will power the 1968 HOCCI National Road Racing Champion unless the Mini-T-Jet arrives in time and is as fast as it is rumored to be.

One final word of caution: watch out for "kinks" in the wire when you are winding. If you get a kink, better start that particular pole over as the wire will burn through at the kink when you shoot the volts to it and all your work will have been for naught.





11



12



1) These are the basic materials: an Aurora comm, an Aurora armature shaft, and three 36-D laminations, plus, of course, wire, epoxy, etc.

2) To remove the Aurora shaft from the rotor, first bend up the tabs that normally locate the commutator.

3) Pry the stock Aurora laminations apart; the shaft should be loose enough to push out. You might have to break or cut the laminations off.

4) Check the shaft to make sure it isn't bent; if it is, toss it away and start over with a new one.

5) The holes in the 36-D stacks must be drilled out to fit the Aurora shaft. First nail a stack to a block of wood with small brads or finishing nails.

6) Drill out the hole with a 1/8" bit. Be careful as there's not much metal to spare.

7) Use the Dremel or similar grinder and wire brush attachments and emery paper to remove burrs, clean up the hole, and polish the lamination.

8) After all three stacks are ready, put everything together for a trial fit. If a stack is bent, either bend it to proper shape with pliers or, failing that, fix up another one (be careful this time).

9) When you're satisfied, mix up a batch of epoxy and glue the stacks to each other and the shaft using a toothpick.

10) Clamp everything together and stuff into a 200-degree oven for a 20-minute cure job.

11) Now you're ready to wind. 200 turns of No. 35 or 300 of No. 38 are nice places to start. I am using 125 of No. 35 on this arm because it will be used for drag racing. Leave about three inches of wire and start winding the first pole. Wind clockwise and keep the winds as tight as possible without breaking the wire and spread them out evenly.

12) When you've finished the first pole, leave another three inches and cut. Now pack the wire down as tight as you can with your fingers and a toothpick.

13) Use small pieces of masking tape to temporarily hold the wire in place as you go on to the second pole.

14) Wind the second pole the same way, leaving three inches of wire at beginning and end. When you've finished, wrap the end piece of wire from the first pole and the beginning piece of wire from the second pole together to form a "pigtail."

15) Wind the third pole. Now wrap the beginning wire from the third pole and the end wire from the second pole together to form another pigtail. Do the same with the beginning wire from the first pole and the end wire from the third pole. You should now have three pigtails.

16) Lay a thin layer of epoxy on the top side of the commutator and slip it on the shaft in its normal position.

17) Use masking tape to hold the arm and comm tightly together as the epoxy dries overnight.

18) Wrap the pigtails around the soldering lugs or tabs on the comm, crimp, solder, and that's it.

19) Comparison shot of the Mabuchi-Aurora arm and a stock arm.

13



14



15



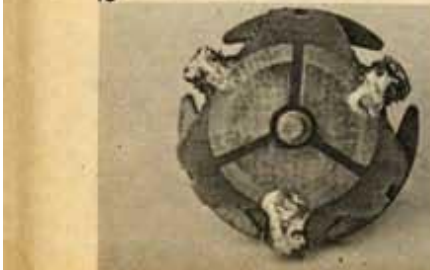
16



17



18



19



WANT A GIANT HOME TRACK?

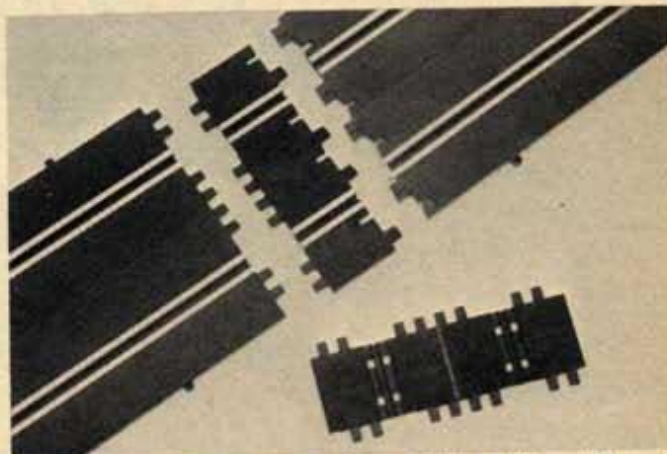
Here's how—and it's easy!

We hope we've convinced you that racing on the 1/32 scale home set tracks can be just as enjoyable, and lot less work with more variety of circuits, than racing on a homemade, handrouted track. If so, you now have (or have plans to acquire) a two-lane or four-lane sectional track home layout among your fellow club or neighborhood racers; you've set the track up off of the floor on portable tables, and you're ready to race. About the only problem the home/club raceway builder is likely to encounter (that was not fully explained in the August, September, or October MCS, 50¢ each from the publisher) will be that of different members of your club or group having different brands of sectional track that they wish to combine into the club layout. If the members have Atlas, Strombecker (1/32 scale, two-lane sections), Monogram, or Revell brands of track, ANY of these four can be combined with ANY other and incorporated into the club raceway. It is possible to combine other brands or types, but the lane spacing, and/or the geometry of the track layouts will not lend itself to different layouts. If any of your members have any of these four brands you can combine two, three, or even all four into a single raceway with little difference in appearance and NO problems in performance.

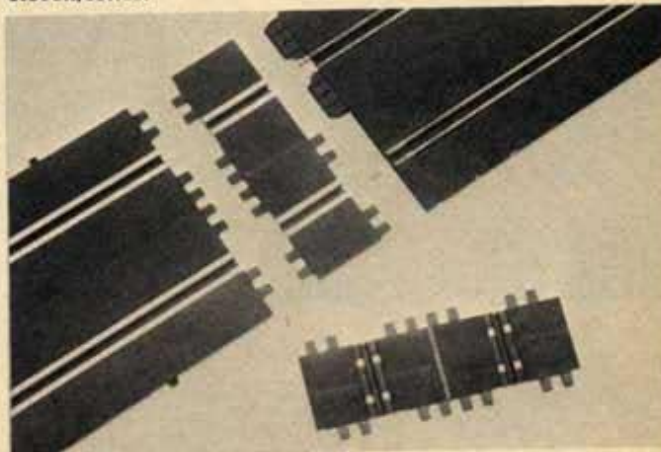
There are two methods outlined in the photos. The first is the easiest IF you want to combine Revell and/or Atlas and/or Strombecker—you simply buy the necessary Atlas combining sections and Atlas short straight kits to do the job. Atlas makes a combining section to mate their track to Revell, and a separate section to mate their track to Strombecker. By using BOTH of these sections, you can mate Revell to Strombecker. Just be sure to add an appropriate length of Atlas short straight somewhere else in the layout IF the majority of the track is Atlas. If you are only using a short bit of "different" brand track, be sure to have the "combining" sections on tracks that are parallel to one another or the geometry of the layout plan will be hopelessly disfigured.

To combine Monogram track with Atlas, Revell, or Strombecker, you must cut and fit the individual sections so that a single straight, for example, has Monogram connections on one end and Revell (or Atlas, or Strombecker) on the other end. The photos show you how to make this combining straight (or curve) to combine Monogram with Revell track in either two-lane or four-lane. The same steps would be followed with Monogram and Atlas, and with Monogram and Strombecker, except that the lugs on the outside edges of the track would have to be cut off where one brand touches the other—and even this would only be necessary in a four-lane track. With two lane, simply follow the photos and captions.

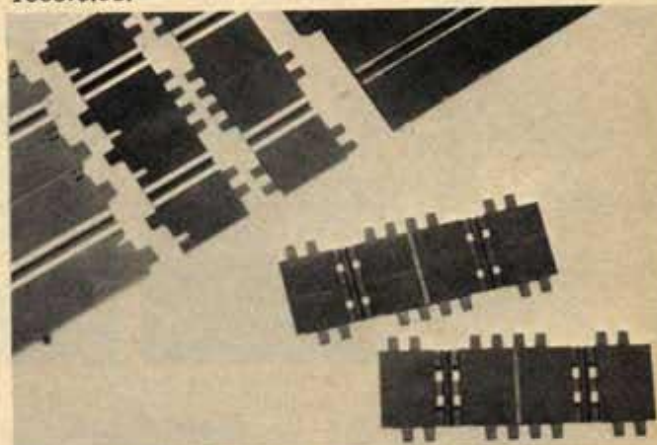
By Robert Schleicher



Atlas combining sections make matching different brands of 1/32 scale home track easy. No. 1538 section combines Revell/Atlas.



No. 1537 Atlas combining section mates Atlas track to two-lane, 1/32 scale Strombecker. No. 1524 filler straight may be needed for some Atlas tracks to offset extra combining piece. No. 1524 is \$1.29, No. 1537:\$.98, No. 1538:\$.98.

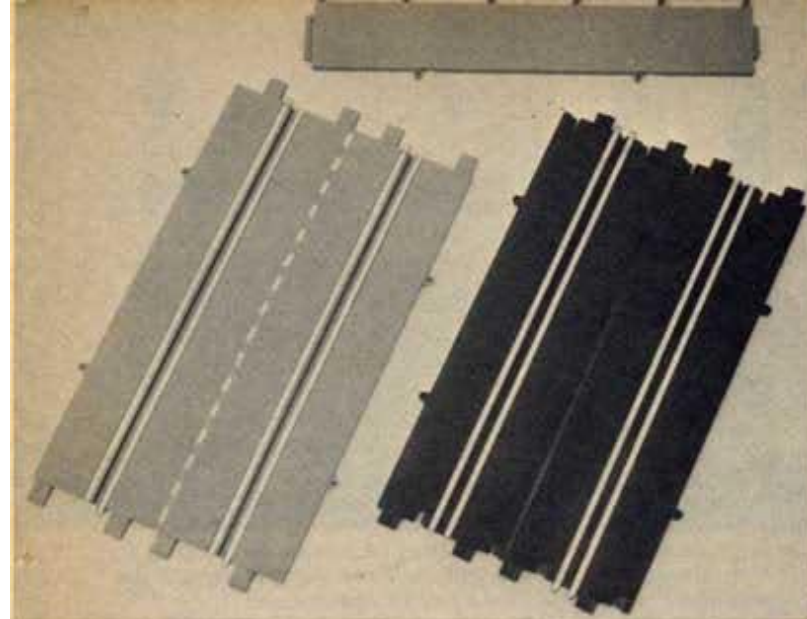


By using both No. 1537 and No. 1538 Atlas combining sections, you can mate Revell track to Strombecker's two-lane, 1/32 scale.

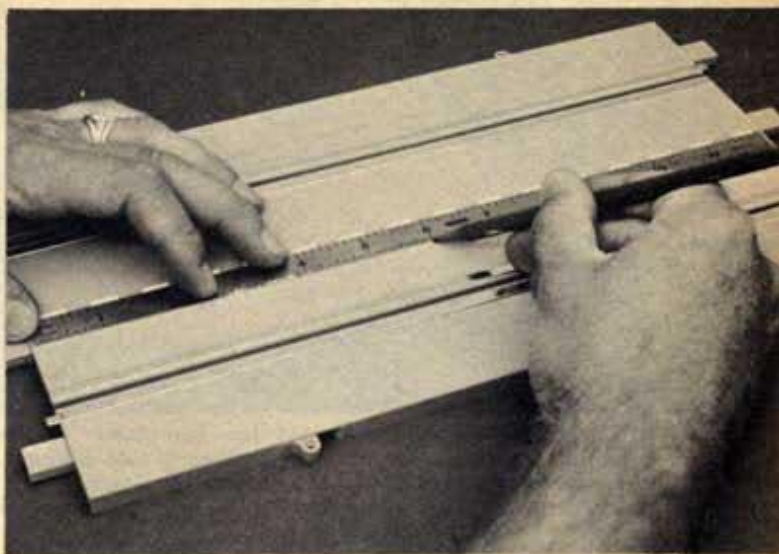
Yet another of the countless variety of club race tracks that can be built from the modular track sections described in the September and October MCS. This track is a 58-foot-per-lap, four-lane duplicate of the Monaco GP circuit using Revell track sections. 12' x 16' area.

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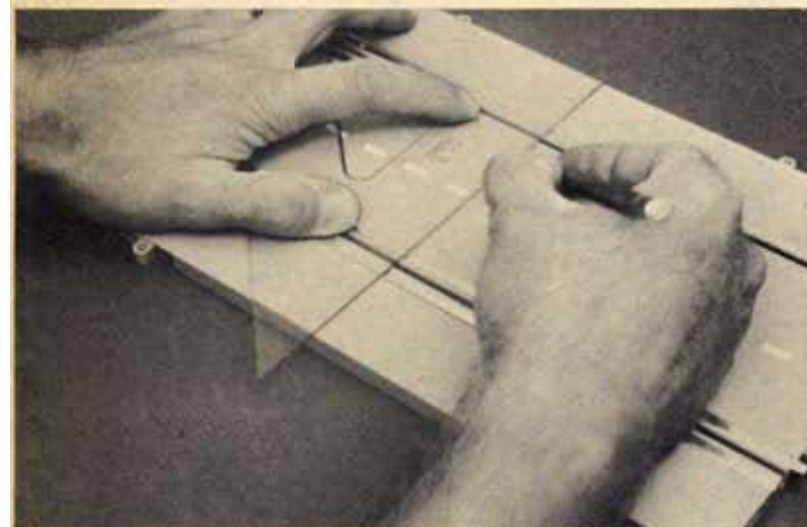




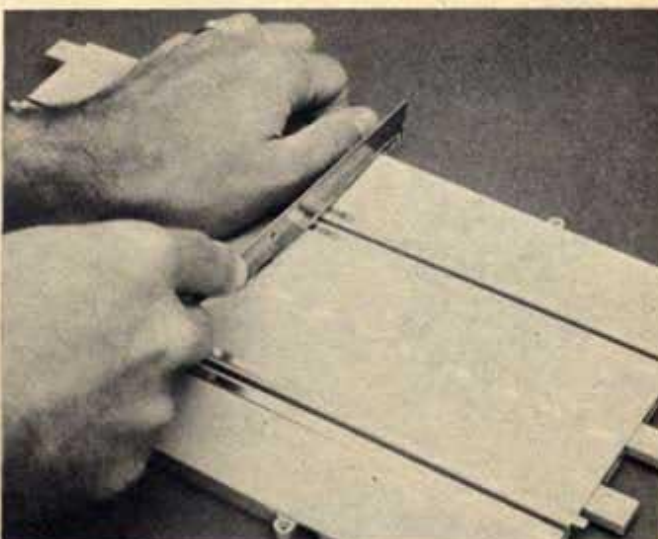
To mate Monogram track to either Revell (shown), Strombecker, or Atlas, you'll have to do some fitting. For a straight combining section, you'll need one piece of each brand's straight plus at least one (preferably two) straight skid aprons.



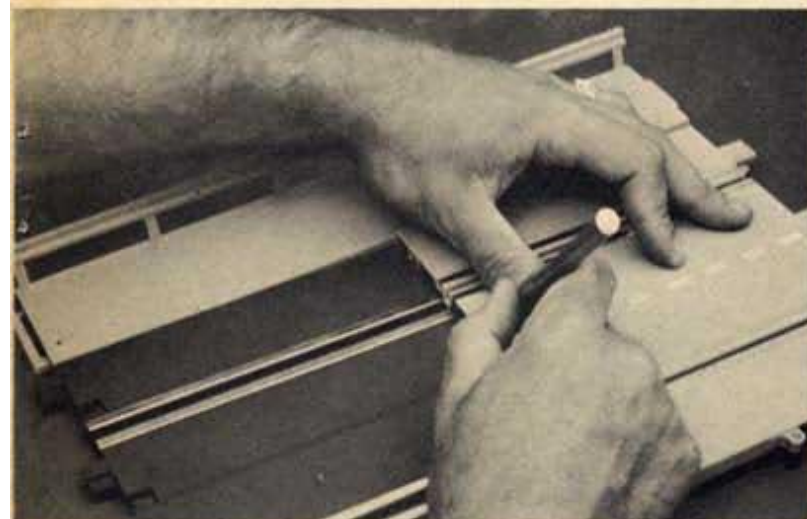
Measure exact center of one of the straight pieces and mark it.



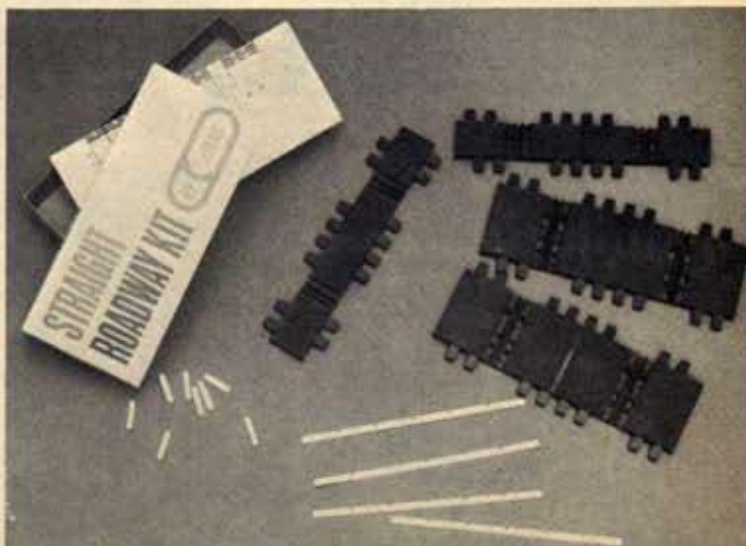
Use a drafting triangle or carpenter's square to mark line across center of straight.



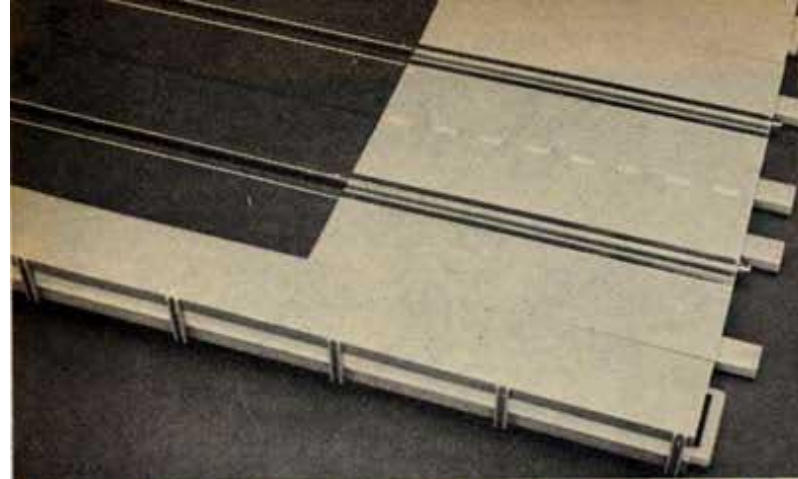
Use an X-Acto razor saw, held at the angle shown to keep cut as straight as possible, and cut right through plastic and metal strips. Use a hobby knife to trim away the burrs left from cutting. IF there is plastic INSIDE the rail's "U" section, it will have to be cut out, also.



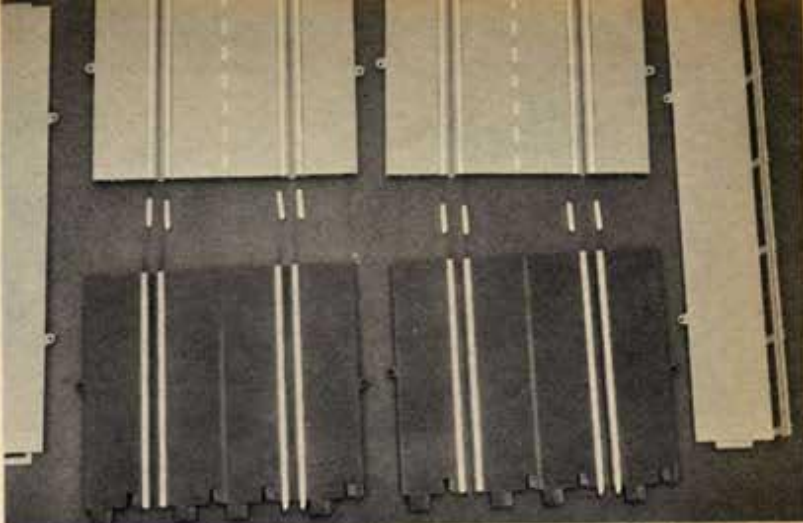
Join one of the cut halves and the other brand of as-yet-uncut straight to the tabs on one skid apron to be sure each is in alignment, then mark the uncut straight with a knife as is done here and cut it with razor saw.



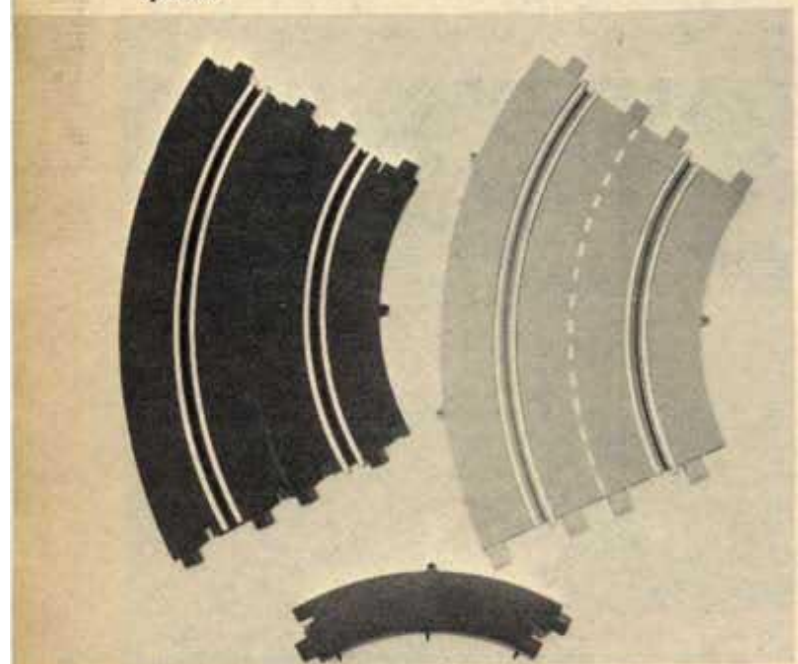
The rail joiners from the Atlas No. 1524 short straight kit are perfect for these combining sections, 12 in each No. 1524 kit.



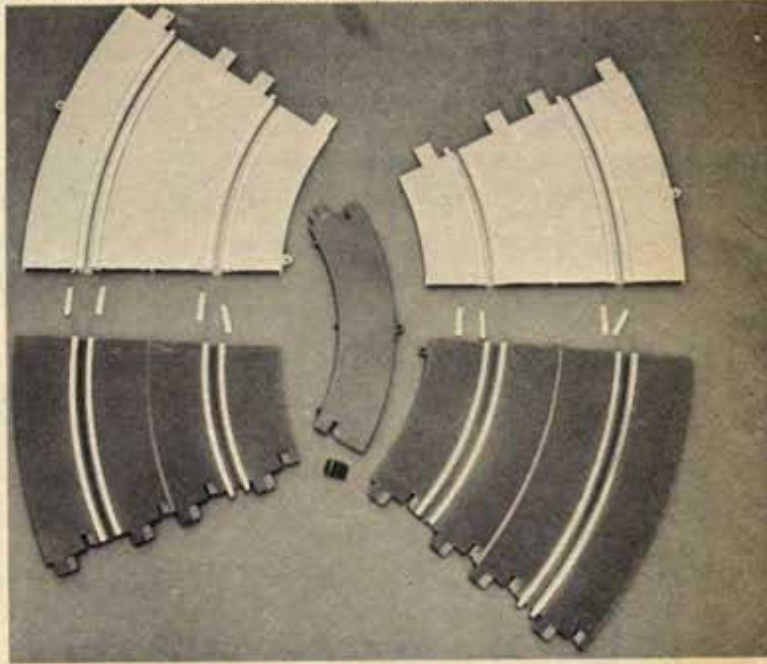
While one side apron will hold the two halves of the combining track section, an apron on each side is better. Apron serves to both align and reinforce the section. If all fits, glue joint between track halves and glue on skid aprons.



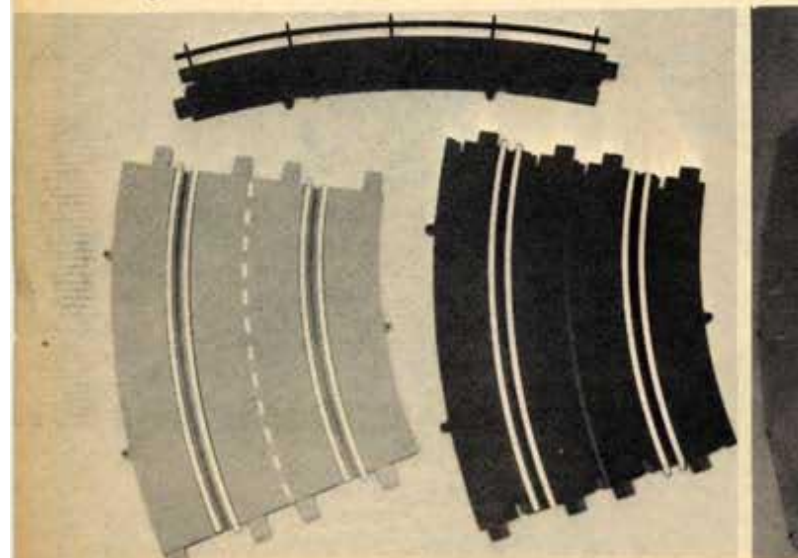
For a four-lane straight combining section to mate Revell to Monogram, two of the cut half-straight pieces will be needed of each brand plus a pair of skid aprons.



If your track plan requires a combining section on a curve, it can be done using one standard curve of each brand and apron.

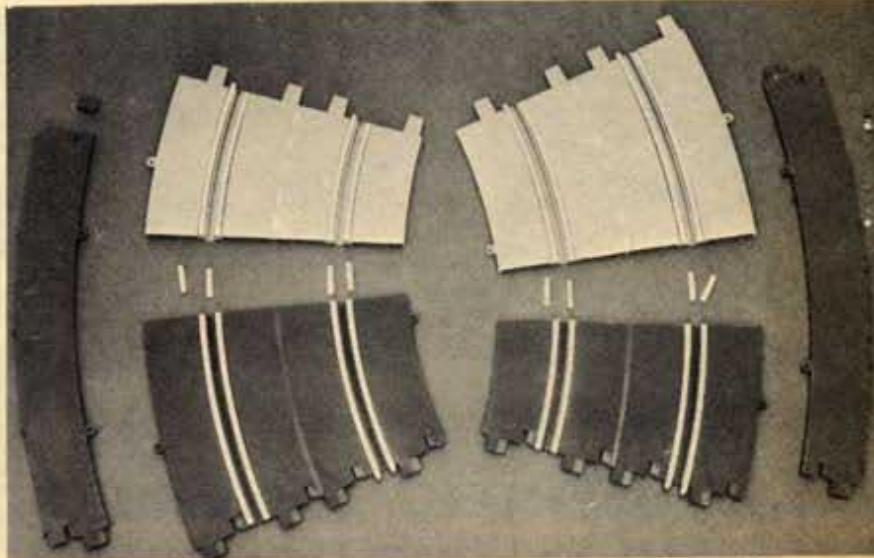


It is best to cut curves slightly off center, but use same razor saw technique as with straight. If you're careful with cuts, you can have two curved combining sections.



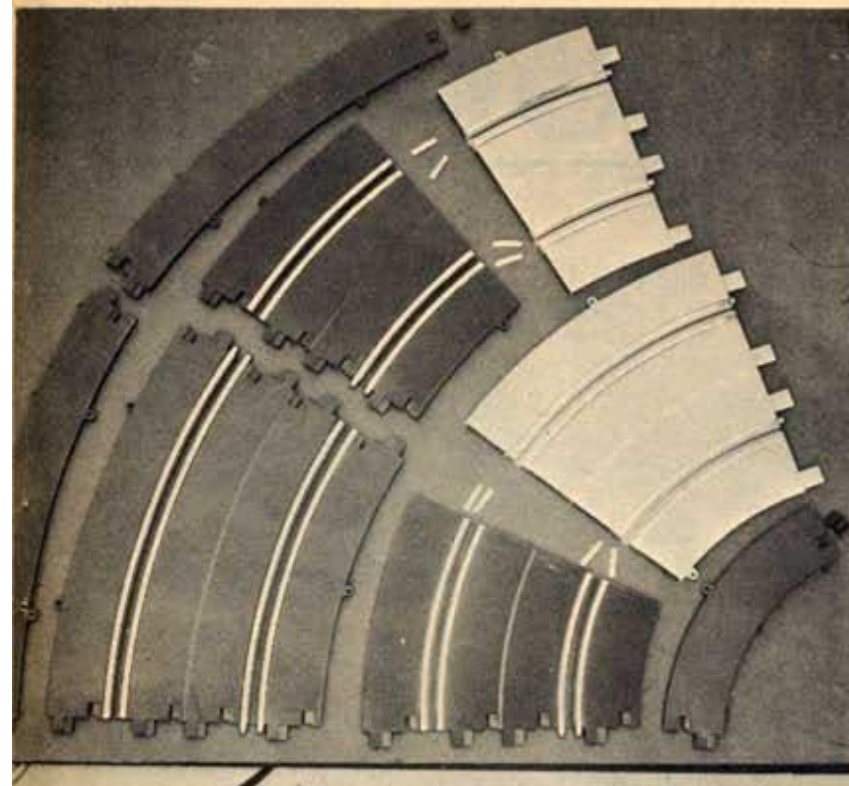
Outer curve combining sections should only be necessary if a four-lane curved combining section is needed. Again, one outer curve of each brand plus a skid apron.

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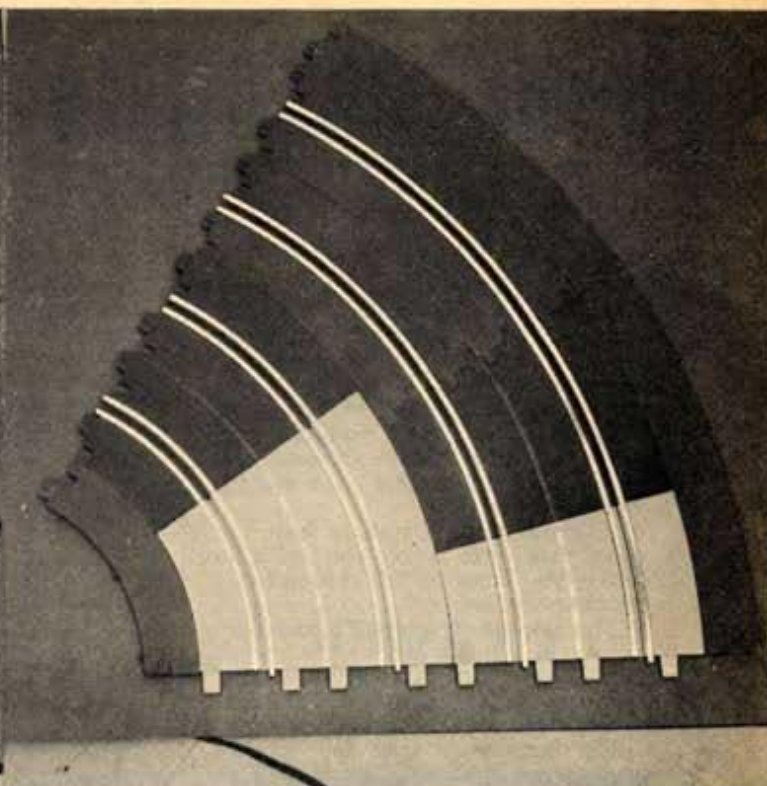


If second cut is made in same manner used for straight combining section, two outer curved can be made from these now-modified parts.

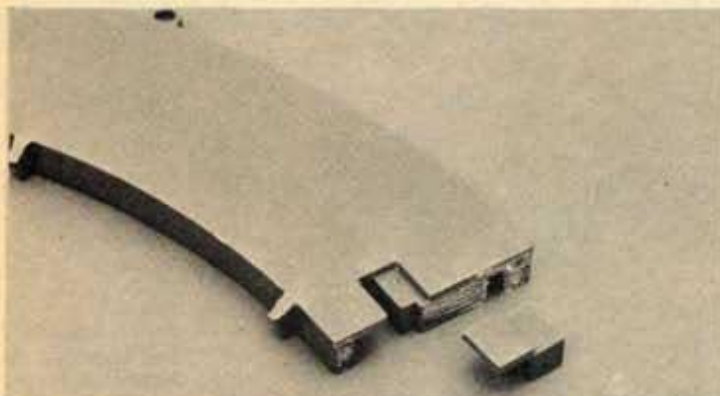
The Official Voice of NAMRA-HOCCI



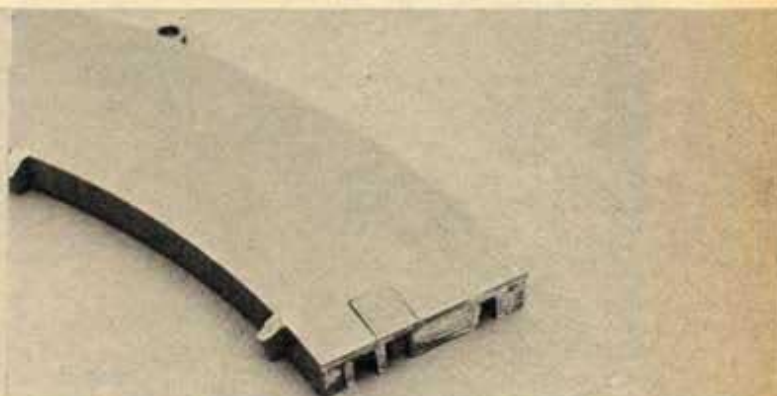
This is the pattern of cut and standard track pieces needed for a four-lane combining section. Note that one unmodified outer curve and skid apron are needed.



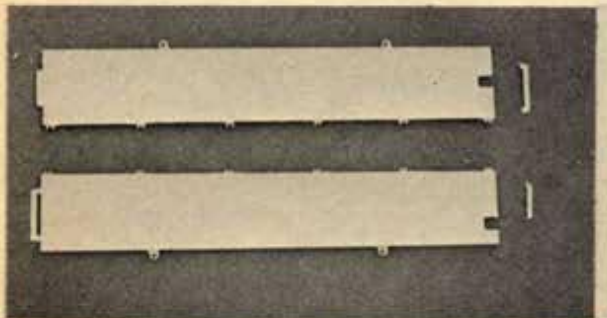
Glue ALL of the pieces of the modified track sections together in the combining section, including the skid aprons on each side. This four-lane curve will combine Monogram (bottom) track with Revell (top).



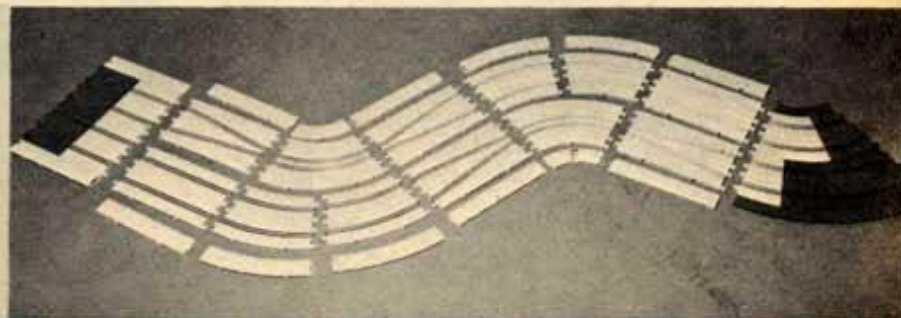
To match the skid aprons together, the ends of each brand will have to be modified, also. On Revell's aprons, cut off the single protruding tab.



Cut-off Revell tab can then be reversed and glued into the single notch in the skid apron to make a flush end to mate with either Atlas or Monogram aprons.



The tabs on one end of the Monogram skid aprons must be cut off to make them with track and skid aprons from either Atlas or Revell. If stock Revell aprons are used next to the Monogram aprons, the Monogram aprons will also have to be notched as shown to match the Revell tabs.



One of the advantages of combining brands is that of using track sections that are only available from one maker. Here, the Monogram curved chicane and longer straight chicane are incorporated into an unusual four-lane chicane unit. This unit will fit into a Revell four-lane track because combining sections have been made for each end. Similar combining sections would allow the use of the Revell banked track with a Monogram track.

HOC CI WORLD

RESULTS OF THE FIRST 1968 MCS/HOCCI RACE

Another column, and the appointment of another HOCCI Regional Director. For the state of Oregon, our man there is Mr. Lee Roy Freitag, Membership #01457. His home address is Route 1, Box 114, Jefferson, Oregon 97352. Okay now, all you HOCCI members in the Oregon area, contact Lee and let him know exactly where you are.

Lee has also offered to host the open date next April, and we'll be letting you know on this as soon as we check it out further.

An old and interesting rumor confirmed in Monroe during the recent HOCCI meet is that Champion, a name well known in 1/32 and 1/24 slot racing, will soon be in HO. We welcome them to the scale and envision some very competitive products from their plant down in Georgia. Does this mean Bob Rule will have to learn how to tame an HO car?

In any case, it may well be that with the introduction of Champion slot racing parts for HO, some old and established HO manufacturers may be stirred into updating their own products. It can't mean anything but good for HO enthusiasts. Can you imagine Arco 33 magnets already made to fit HO cars?

Latest word on the HOCCI poll regarding stock vs. non-stock shows a slight change towards keeping the stock class. The final results will soon be in. Headquarters is now going over wheel and tire sizes for all classes plus all important over-all body dimensions that will govern what will be allowed to run in future meets.

Word in from the Competition Committee is that the first mail-in entry for the meet in Elwood, Indiana, has been received. We hasten to add that all entries must be accompanied by \$1.00 entrance fee and all cars must be sent to HOCCI headquarters in New York.

And now, before giving you the results of the HOCCI meet in Monroe, we must once more remind you that there are no monthly newsletters being issued. There haven't been for some time, and we have been saying this almost every month. MODEL CAR SCIENCE is the Official Voice of HOCCI, and replaces the original newsletter.

Now, the Monroe meet. The first meet of this season was held at Regional Director Richard Harrison's "The Hobby House" in Monroe, Louisiana. Dick Harrison tells us that 110 entrants made it in, mailed from all over the country. The figure may impress many, and disappoint more,

TRANS-AM STOCK MAIN

1. Lee Freitag
2. Bruce Rosenberg

Oregon
Oregon

Camaro #2
Cougar #3



TRANS-AM MODIFIED MAIN

1. Kim Shaw
2. Gary Elliott

Indiana
Texas

Camaro #1
Cougar #25



NASCAR STOCKERS STOCK MAIN

1. Carl Dreher

Indiana

Ford Galaxie #1



NASCAR STOCKERS MODIFIED MAIN

1. John Jolley III
2. Carl Dreher
3. John Merilatt

Washington, D.C.
Indiana
Texas

Ford Galaxie #09
Ford Galaxie #2
Ford Galaxie #65



GT STOCK MAIN

1. Bruce Hunton
2. Carl Dreher
3. Barry T. Gray

New York
Indiana
Pennsylvania

Porsche #76
Ford J #1
Ford J #1



GT MODIFIED MAIN

1. Gregg Pomeroy
2. Art R. Walicki
3. Robert Wrenn

Texas
Illinois
Virginia

Ford GT #14
Ferrari P4 #3
Ferrari P4 #12

**SPORTS STOCK MAIN**

1. Jay Stott
2. Carl B. Schoenman

Texas
Illinois

Chaparral #3
Chaparral #3

**SPORTS MODIFIED MAIN**

1. Bert Haas
2. Larry Kershner
3. Gregg Pomeroy

New York
Ohio
Texas

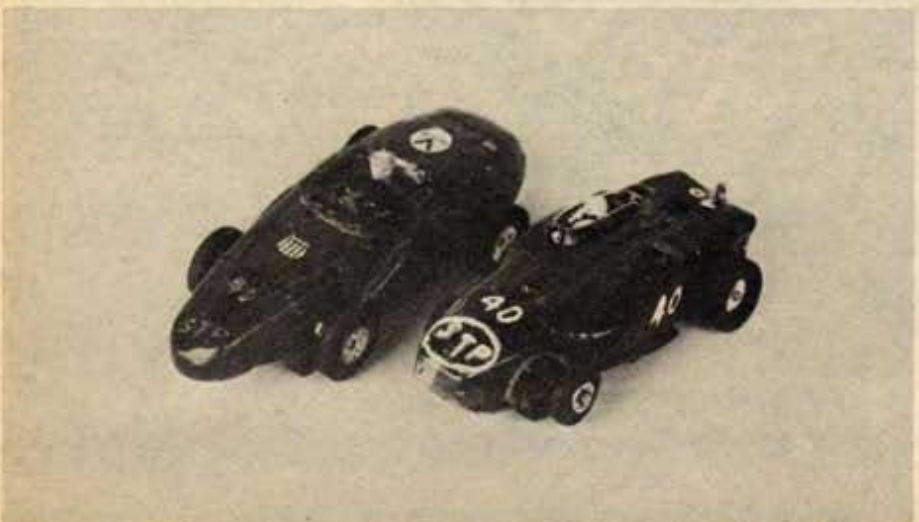
Cobra #8
Lola T-70 #65
Jaguar #97

**GRAN PRIX MAIN**

1. Eric Platt
2. Carl Dreher

New York
Indiana

STP Turbine #4
STP Turbine #40



since the HOCCI membership roster is now over the 2,000 mark. However, one must take into consideration that this first mail-in event of the current season was introduced with much confusion and that, unfortunately, not all joiners are doers. Before you voice any opinion about poor response, ask yourself if your car was entered.

We think it enough to say now that of the three official HOCCI events held over the past two years, this has been the highest number of cars received and there is no reason for this figure not to double by the next meet.

The program at Monroe was divided into nine individual race events. One for Grand Prix which runs modified only, and two each, stock and modified for Sports, GT, NASCAR type Stockers and Trans Am cars.

POINT STANDINGS**STOCK DIVISION**

1. Carl Dreher	15
2. Bruce Hunton	8
Jay Stott	8
Lee Freitag	8
3. Carl B. Schoenman	7
Bruce Rosenberg	7
4. Barry T. Gray	6

POINT STANDINGS**MODIFIED DIVISION**

1. Gregg Pomeroy	14
Carl Dreher	14
2. Bert Haas	8
Eric Platt	8
John Jolley II	8
Kim Shaw	8
3. Larry Kershner	7
Art R. Walicki	7
Gary Elliott	7
4. Robert Wrenn	6
John Merilatt	6

POINT STANDINGS OVERALL

1. Carl Dreher	29
2. Gregg Pomeroy	14
3. Bert Haas	8
Eric Platt	8
John Jolley III	8
Kim Shaw	8
Bruce Hunton	8
Jay Stott	8
Lee Freitag	8
4. Larry Kershner	7
Art R. Walicki	7
Carl B. Schoenman	7
Bruce Rosenberg	7
5. Robert Wrenn	6
John Merilatt	6
Barry T. Gray	6

Congratulations to the winners mentioned. And a big thanks to all those HOCCI members who entered and helped to get this first meet off the ground. As you can see, the points race is on, and it's still wide open. If you did not enter this first meet, there is still time to get in on it and win.

The next meet is Oct. 29 for all of the classes that were run in Monroe. But remember, cars must now be sent directly to HOCCI headquarters in New York so they can be registered.

* WIN A \$25
 SAVINGS BOND
 * AND A
 THREE YEAR
 SUBSCRIPTION
 TO MODEL
 CAR SCIENCE!
 * NOTHING
 TO BUILD!
 * JUST DREAM
 UP A WILD
 NAME FOR
 THIS CAN-AM
 CAR! HURRY!

This nameless Can-Am car was designed by Gordon Saunders, and is being built by Eisert Racing Enterprises. But before it can race, it needs a name! Get with it guys! This clay model is setting against a mirror, which accounts for the "split" down the middle, and the reversed numbers. That's how new the car is guys! We get news when it's still HOT!

NAME THE CAN-AM CAR CONTEST

When the starter's flag drops at the start of the first race in the 1969 fall Can-Am series, a new car will be in the field. The car has no name yet—that's going to be *your* job—but it's in the process of being built now, so you'll have to hurry!

This gorgeous Can-Am machine was designed by Gordon Saunders, and the actual car (that's a model in the pictures) is being carefully fabricated at Eisert Racing Enterprises in Costa Mesa, California.

There's nothing to build. Just sit down and give it some serious thought. A beautiful car deserves a beautiful name, so strain your brain! When you think you've got a winner, simply jot the name down on a piece of paper, along with your name and address, and mail it to: The Contest Editor, Model Car Science Magazine, 131 Barrington Place, Los Angeles, California 90049. Contest judges will be Eisert, Gordon Saunders and the MODEL CAR SCIENCE staff.

The winner of our contest will receive a \$25 SAVINGS BOND and a THREE YEAR SUBSCRIPTION TO MODEL CAR SCIENCE. If you don't win, you will have a chance to win again, as we're awarding the next contest to the winner of the next YEAR SUBSCRIPTION TO MODEL CAR SCIENCE.

Imagine how proud you'll be to see your name on the car in action, bearing the name you gave it. Hurry! The contest closes on October 30, 1968! Get with it!

SORRY - THE CONTESTS



ENTER



Hey, guys! Get in on the fun! We're looking for some real imaginative ideas from you. Now you'll come through for us. All you have to do is get one of our exciting old-time car kits at your local store or mail order company. Then, simply crack the box open and start customizing. It's so easy and so much fun! We want to see who can come up with the most interesting old-time car in the country.

ARE CLOSED

Watch for the winners of the MPC and the Can-Am contests—**IN THE DECEMBER ISSUE OF MODEL CAR SCIENCE!**

Prizes away, so get going on it right now. The contest is for old-time car kits. You can choose from the following: 1931 Ford Roadster, #200; 1932 Chrysler Convertible Sedan, #201; 1927 Ford Roadster, #202; 1932 Chrysler Convertible Roadster, #204; 1931 Ford Roadster by Locke, #228; 1932 Imperial by LeBaron, #232; 1932 Ford Roadster, #302; 1933 Chevrolet Panel Truck, #303; 1928 Ford Panel Truck, #304; and the 1929 Ford Station Wagon, #305.

Now then, what can you do to the kit? **Anything!** You can chop it, channel it, section it, swap engines—you name it! Then when you're through with it, take a sharp black-and-white photo of the car and send it to the Contest Editor, Model Car & Science, 131 Barrington Place, Los Angeles, California 90049, along with a description of what you did to it. Our panel of judges will pick the winners.

And here's a list of the prizes!

FIRST PLACE: \$100 Savings Bond, plus 20 MPC kits!
SECOND PLACE: \$50 Savings Bond, plus 15 MPC kits!
THIRD PLACE: \$25 Savings Bond, plus 10 MPC kits!

and a load
of FREE kits

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THIRD PLACE: \$25 Savings Bond, plus 10 MPC kits!

And that's not all! Five kits each will go to the winners of 4th through 17th place!

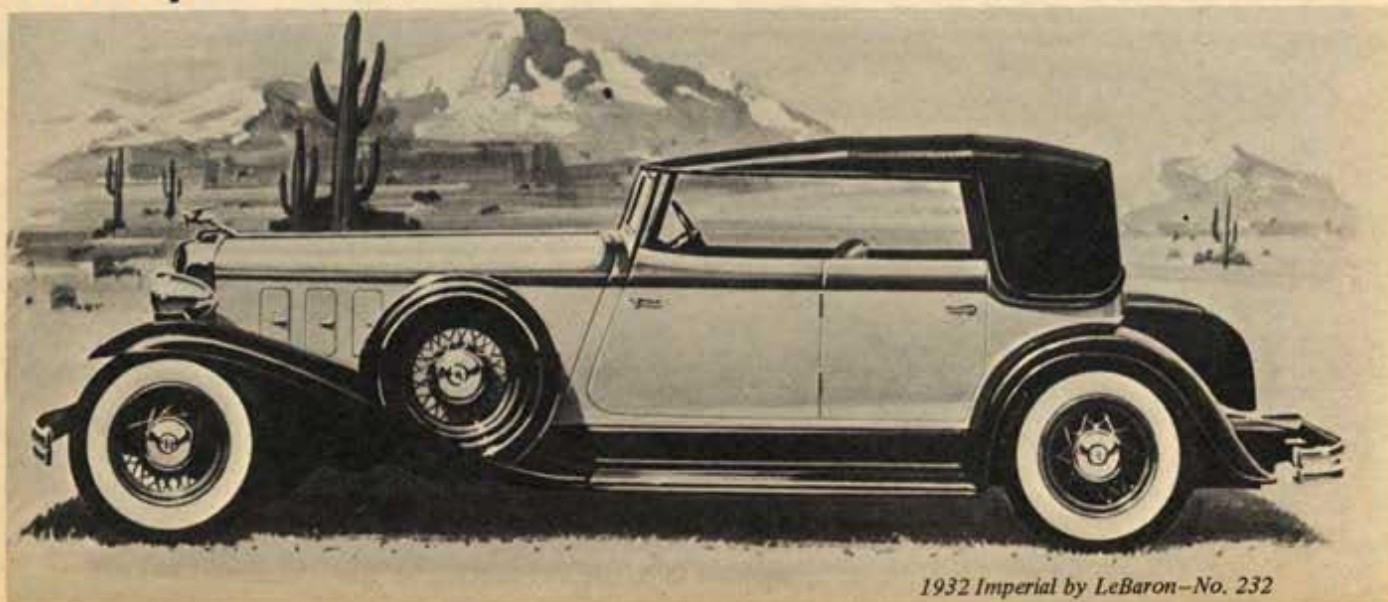
HURRY! Get started building your "way out" "Custom Roaring Twenties Bomb!"

The deadline for contest entries is September 20.

Get going gang—this should be a real test of your model building skill and ingenuity! **\$100 PRIZE!**

**and a load
of FREE kits
to the winner!**

And prizes all
the way down
to 17th place!



1932 Imperial by LeBaron—No. 232

GO PRO

By
Chris
Chan

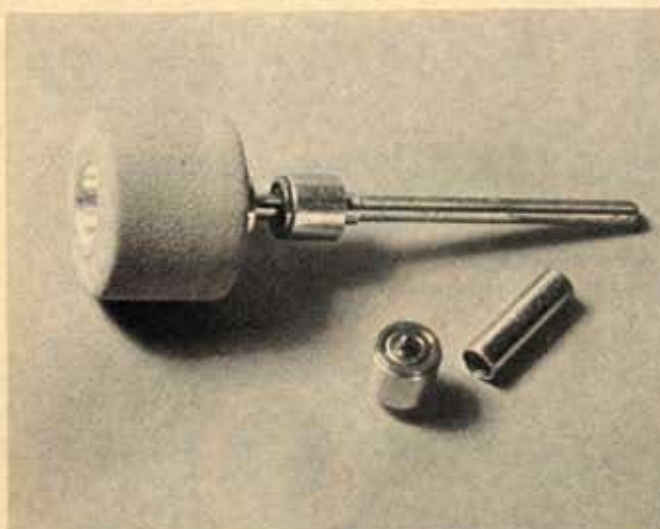
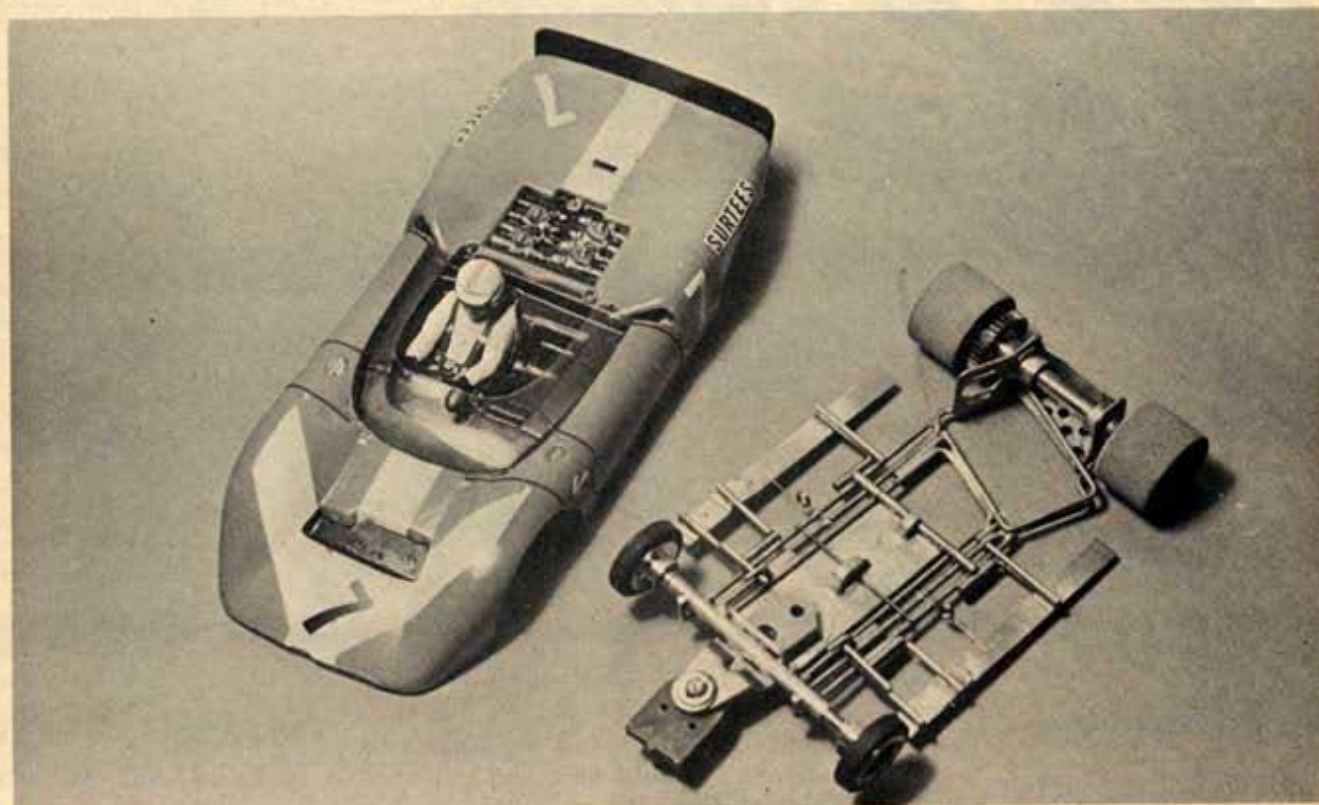
Build a winning "anglewinder" chassis!

"Anglewinders" are very much the way to go fast now, powered by a 16D-sized motor set at a 15 to 20 degree angle to the rear axle. Brackets are either available from

Dynamic or Associated's Advance line, or fabricated from old Russkit No. 795's.

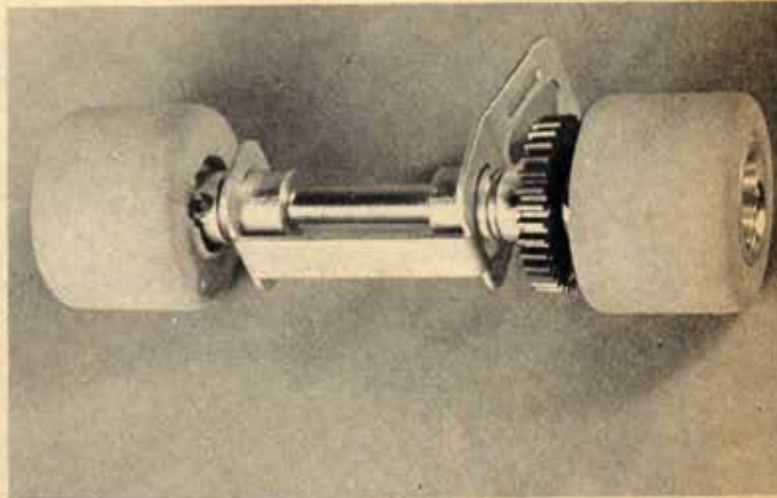
For gearing, the best setup is WelDun 64 pitch aluminum cogs. Once broken in with toothpaste or rubbing compound, these precision gears are far and away the most efficient. However, both cost and availability hamper their current usage. A pair of WelDun's will run close to \$4.00 and .078-inch pinions are scarce. That leaves us with Cox nylatrons for taking care of the transmission. They are either heated or run in at the proper angle. The rest of the chassis is basically the same as an inline frame with its door hinge body mounts and one-sixteenth-inch slab drop arm.

The Dynamic bracket is not for motors wound to run clockwise (timed). The motor used in the car photographed is a 28-28 Mura 1000. All Mura's run faster counter-clockwise and so the chassis is built to correspond. If you are using an older Thorp or a Lenz or any other clockwise-timed motor, you must build your chassis for lefthand drive. It is simple enough to flop over Dynamic's bracket.



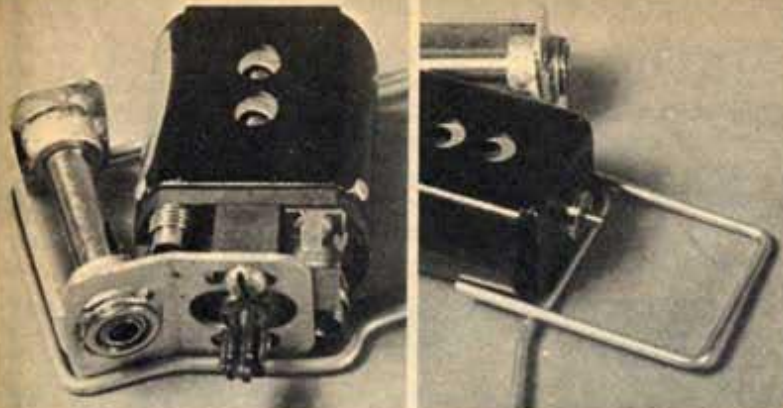
Ball bearings replaced the oilites in the Dynamic pillow blocks. An inch long tube keeps the blocks properly spaced.

50/Model Car Science

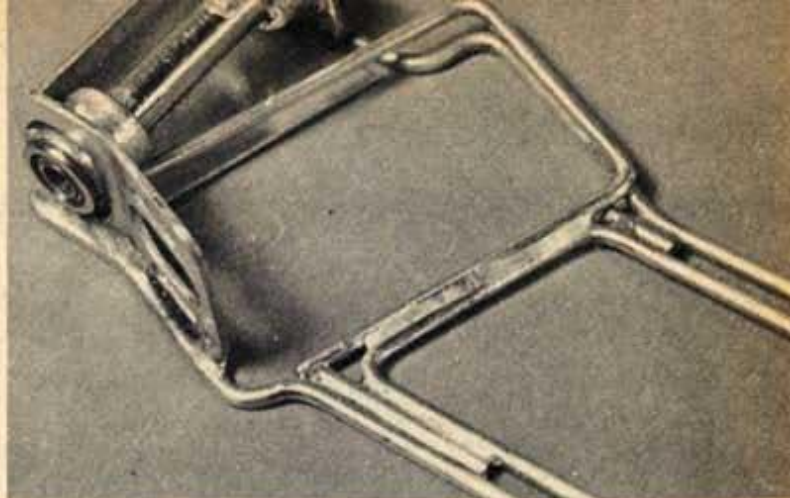


Install the complete rear end into the bracket, check for either left- or righthand drive, and solder in place with a 1/16 inch clearance.

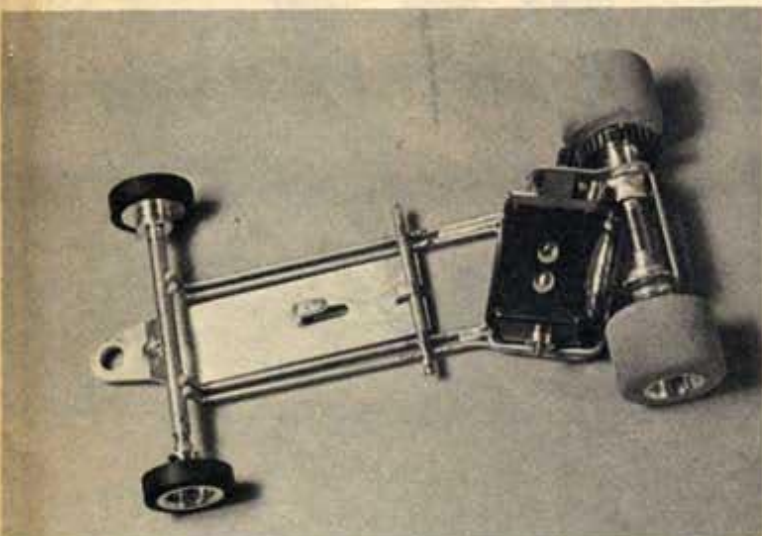
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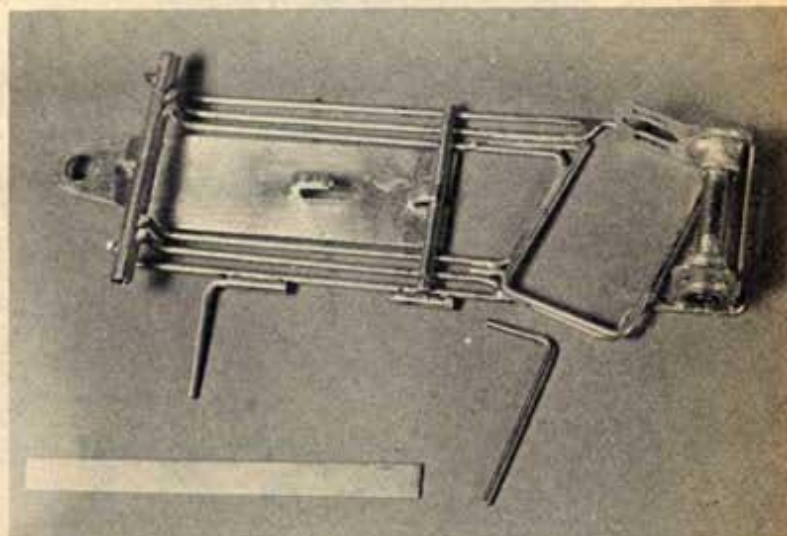
With the motor installed and the rear axle off, bend the first 1/16 inch rod to the contour of the assembly. The rods should be a close fit on both ends of the motor to minimize flex. To make certain the motor doesn't wander about and to give you something else to solder to, a U-bracket is soldered on around the can.



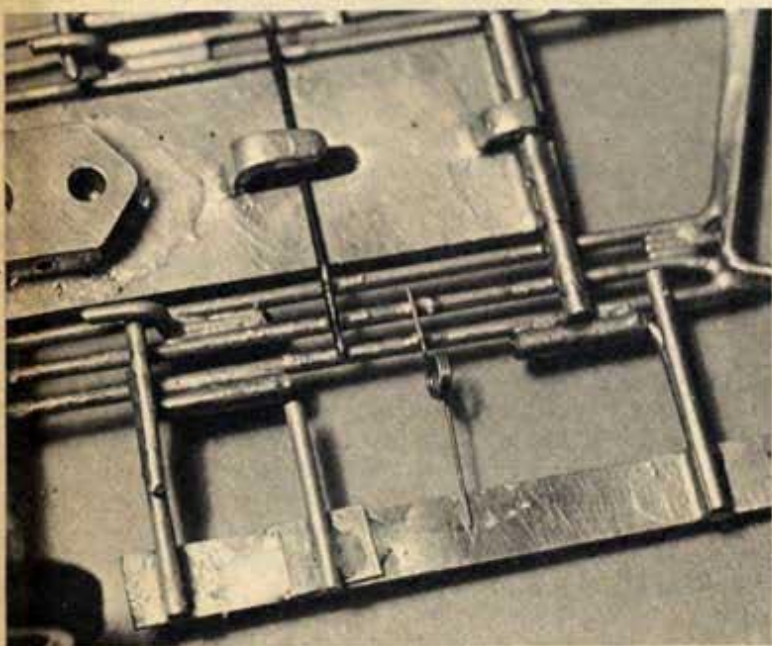
The inner rod is soldered to the U-bracket, spaced 1/16 inch inside of the first. The 1/16 inch short rods are used to equalize the "flex lengths" of the two pairs of rods.



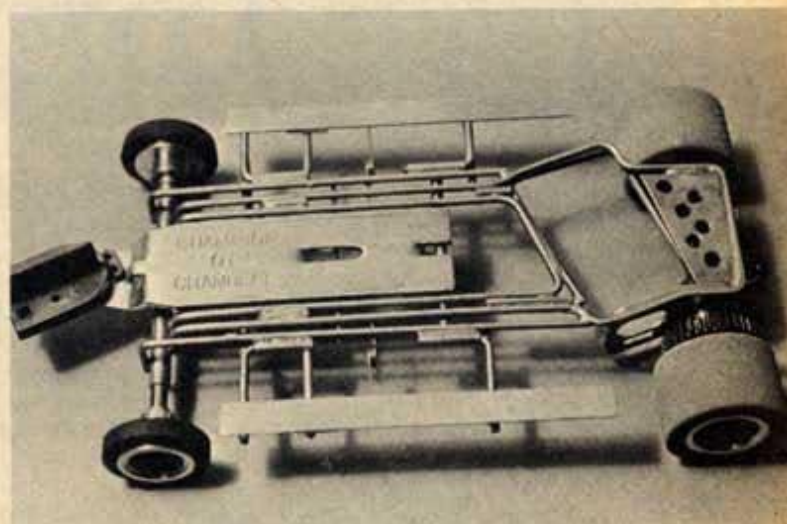
The front axle was located on a Russkit jig and soldered in position, as was the Champion slab drop arm.



The third set of rods is soldered to the outside of the first, again spaced 1/16 inch away. They are mostly for added strength and weight. With a piece of 1/16 inch aluminum, locate and solder on two half-inch-lengths of 3/32 inch brass tube for the hinged body mounts. L-shaped pieces of 1/16 inch rod are inserted into the pivot tubes, then a .032 inch brass plate one-quarter inch wide, is soldered on at body width.



Mounting arm droop limits are soldered between the first two rods to make contact with the pin tubes. Motor springs from a Mabuchi 26D are used to keep the body mounts down. The body shouldn't flap about easily, but only give slightly in the corners.



The springs should work with the limits to keep the mounting arms level with the bottom of the chassis when the entire unit is flipped over.



METAL MEN ON PARADE

**MONOGRAM'S TINY, TERRIFIC MILITARY
MEN ARE A COLLECTOR'S DELIGHT!**

Like it or not there is no denying that the armies of the world have shaped the course of history. Not surprisingly, the garb of the army reveals both the mood of the period and the "state of the art" of battle—the drab-but-efficient dress of modern Green Beret Forces contrasts sharply with the plumage, braid and tassels of the 1810 vintage French Horse Artillery of the Guard.—Both are intriguing; both are colorful; and both are included in Monogram's all-new series of museum-quality cast metal soldiers, the Merite' (or men of merit, if you wish) series.

The Monogram figures are exquisitely molded with little or no excess metal and really life-like expressions on the faces and hard-to-capture folds in their clothing that make it look soft enough to flap in the slightest breeze.

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Figure is painted without gun. Folds and creases in cloth, boots and gloves are highlighted and shadowed with slightly lighter and darker shades of basic color. Gun is painted a mix of black and silver with silver highlights and streaked brown stock. Gold label presses on base. Epoxy figure to base and gun in hand. The collection of six Monogram Merite figures gives a representative from each major war of the last two centuries. Each kit is \$2.50.

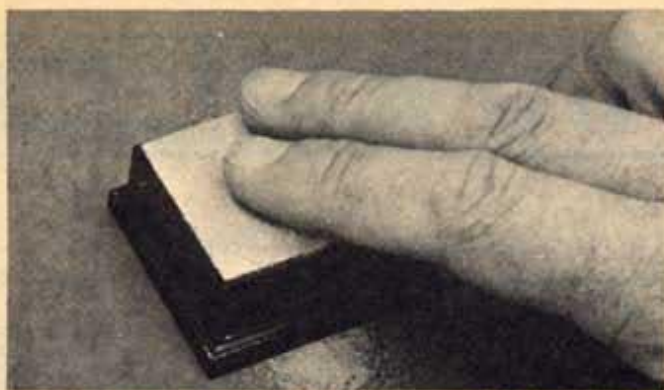


Museum-quality cast metal historical fighting men from six different wars are included in Monogram's Merite series. Each figure kit includes an authentically researched figure with weapons and loose arms to ease painting with base, epoxy for assembly, and full painting instructions.

The majority of the European-made military figures have been in what is termed "54 millimeter" scale—to make each figure comparable to another of another era. Each figure is the same height of about 54 millimeters or about 2 1/8". This works out to almost exact 1/32 scale.

Monogram has chosen six different historical periods for their first Merite offerings. The "U.S. Army Special Forces Green Beret" figure represents the present era, with the "German Luftwaffe Paratrooper" (shown in most of these photos) of WWII vintage, the "Prussian Guard Infantry, Germany" from World War I, "Berdan's Sharpshooter, Union Army" from the Civil War, one of "Roger's Ranger's" from the Revolutionary War period, and the "French Horse Artillery of the Guard" representing the time of Napoleon. Each kit contains epoxy cement for attaching the arms, a plastic display base, and painting instructions and color codes keyed to the popular Testor's paints.

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Base will be far more of a showpiece if its surface is modified to represent earth. Spread on a thick layer of white glue first. Press fine sand, or plain dirt, into the still wet white glue. Be careful not to allow any glue to run over sides. When dry, shake off excess sand.



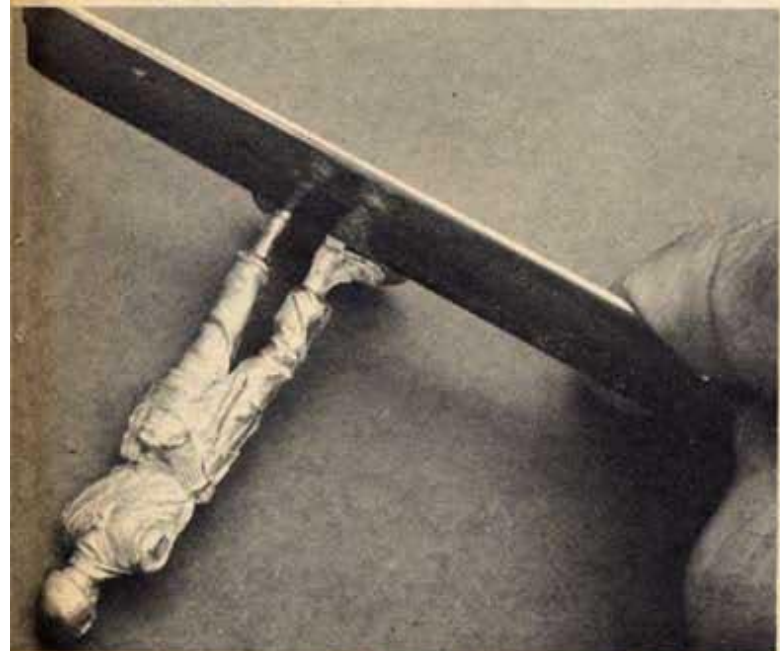
Close-up view of Monogram Merite figure and parts reveals superb detail and minimum of excess metal or "flash." Each figure is a work of art.



Modeler needs paint, some glass scrap (microscope slides are good), No. 0 and No. 00 paint brushes, white glue, sand and paint.



Careful examination of figure will reveal the part line where it was removed from mold. Line runs down sides of body, head and legs. Scrape off with knife where visible.



It is NOT essential to remove the cast-on base, but the realism of finished figure is improved. Work slowly with a razor saw.



FLAT, or non-glossy, paints are a MUST for any of these figures. The "secret" of top military figures is in shading the colors of the face and the folds of the clothing. Use a glass to mix basic color with lighter and darker colors blended in for shadows. "Flesh" is actually a new Testor color, flat light tan, No. 1170, from Testor's new military model paint set which was designed to be used with the new Monogram Merite figures. Kit's instructions show where each shade should be applied for utmost realism. Mixing guide also furnished.

NAMRA WORLD

Forty miles between tech inspection and qualifying!

The 27th of July was the date set for the first post-season NAMRA race. This "between" seasons program for 1/24 cars only is another series sponsored by *Model Car Science* magazine and sanctioned by NAMRA.

To introduce the series, NAMRA secured the new facilities of The Closter Sport and Hobby Center in Closter, New Jersey.

The track to be used was one of those 200-plus-foot monsters that really lets the cars wind out. The track had just been resurfaced and rebraided, and as NAMRA's tech crew walked in at 9:30 in the morning, Closter's electrical crew was just coming out from under the track, having coupled it to one of the biggest batteries we ever saw.

With tech inspection over and the cars impounded, everyone settled down for the first break of the day or went in search of food, as we did.

At this point during a NAMRA event the drivers get a little restless and tend to strain at the bit. We, being no exception, hurried back to the track. Then the fun began... As we approached the building we were almost made part of the local asphalt by a monster-type fire engine that seemed to be going to a race of its own. Big laugh from the boys in the back seat. As we passed the back of the building, we realized that the engine that had almost done us in had pulled up with several others at the front of the raceway, no laughing now! We urged our driver to get with it by beating him over the head with an old copy of MCS and as we pulled up to the parking lot, now filled with fire equipment, firemen and lots of funny little cars, we realized the mob out front was made up of our drivers who had retreated to safer ground in spite of vigorous arguing with the local firefighters about 1/24 cars being heat resistant and they had motors that could prove it, none of which was understood nor impressive enough to move the local crew from the red trucks. So there we stood, one hot parking lot, lots of little cars, cameras, little cars, tape recorders, little cars, score sheets, little cars and lots of unhappy guys beginning to grumble.

A quick check with the shop owners proved that the fire had been outside the shop but on their power line. The tracks and shop were okay, but no light power, and the fire department of course said CLOSED.

Now a test of loyalty and desire to run. Would the competitors be willing to drive in their 1:1 cars to another track if arrangements could be made?

We were answered by being pushed, carried and dragged to the nearest phone. We didn't even pay for the calls. Track owner and NAMRA member Mike Tango who owns and runs Nutley Raceway in Nutley, New Jersey, said, "Come on over, the track will be ready whenever you get here." So we went. For those of you not familiar with this area, even the quick route between these shops is the long, scenic one and the sight of this NAMRA motorcade as it made its way out of the town of Closter was enough to have two local Sunday drivers get caught in it and taken off their planned route and one highway patrolman stop and ask about the hearse that was not in sight.

The most frustrated individual we met was one local traffic cop who couldn't figure out why the first six cars in the motorcade stopped about 200 feet short of a green signal and refused to move. As the rest of the cars we had been waiting for caught up, we moved off again shouting something about the route to Santa Fe.

Mike Tango and the fast Nutley course were ready as always when we pulled in, and with tech having already

taken place, we finally got on with qualifying.

Spirits were still high when the standings were posted and they read Consie, Rodriguez, Lamp, Peluso and Stolting.

Semi, McCabe, Bianchi, Bottjer, and Kanarek; Main, Correnti, Cressi, Wong and Hansen.

A well-deserved Concours win went to Bob McCarthy, who came loaded for bear with four concours entries. His beautiful Ford Mk IV, complete with engine wiring, took it over-all. The 100 lap Consie got under way with Stolting who had just signed on with NAMRA, firing his car off the line for a lead. Peluso tore off behind him with Lamp scrambling for third. Poor old man Rodriguez, still in a state of shock after realizing he had never practiced with his Honker, built just for this race, was left to keep fourth place warm with last year's Ferrari that he insisted on running because he knew how it handled. Funny, it handled just like it did last year.

Peluso managed to catch and pass Stolting, only to have the lead taken back two more times during the first 25 laps. Lamp could at this point do no better than third, and all three had



Charlie Cressi, slot racing's evil old man, laughs after Wong's car jumped the slot, got into Charlie's lane, and was completely destroyed.

come up within lapping distance of Rodriguez, who by now was muttering something about a death wish.

With lanes changed for the start of the next 25 laps, Stolting suddenly developed brush trouble and was forced to pit for an agonizing eight laps. Peluso held down the first spot with Lamp still third. Rodriguez, who had just gotten lapped, began to pour it on and managed to unlap himself and push Lamp. The pressure of first was too much for Peluso at this point and his car decided to examine the infield more closely. Lamp took over and Rodriguez, three feet behind, pushed even harder. Across the line it was Lamp, Rodriguez now about a foot behind, Peluso two laps down and Stolting trying to get out of fourth.

The smiling face Frank Bianchi was displaying as he came up to the driver's stand for the start of the Semi was a clear indication that something was up, and as they got off the line it was obvious that Bianchi's latest side-winder would be the car to beat, if it could be caught. They had 120 laps to do it in. Running with Bianchi in this one were Tom McCabe, Charlie Bottjer and Lou Kanarek, home from medical school in Spain.

When the first 30 laps had gone into the book, Bianchi had never given up first and Kanarek, driving a red, white and blue Mirage was second with Bottjer third. McCabe's car just did not seem able to keep up. This order held all through to the 60-lap mark with Bianchi moving out from the pack and Kanarek making sure that his car was well ahead of the third place Bottjer and tail man McCabe.

Running for the 90th time around, disaster struck Kanarek's car after a trip into the wall. The body mounts tore loose on one side and, trying to repair them, dropped the car to third behind Bottjer and Bianchi, who had put even more distance between himself and the rest of the field.

Into the last quarter with Kanarek's car coming unglued again it was black-flagged for the safety of the others, and he had to settle for fourth, crossing the finish line behind third place McCabe, second place Bottjer and Frank Bianchi, who led from start to finish.

For the Main event we had Chuck Hansen, who came prepared with a sidewinder chassis built to NAMRA specs, NAMRA's evil old man Charlie Cressi, and the two young drivers who really made a name for themselves in the last NAMRA meet, Roy Wong and Fred Correnti.

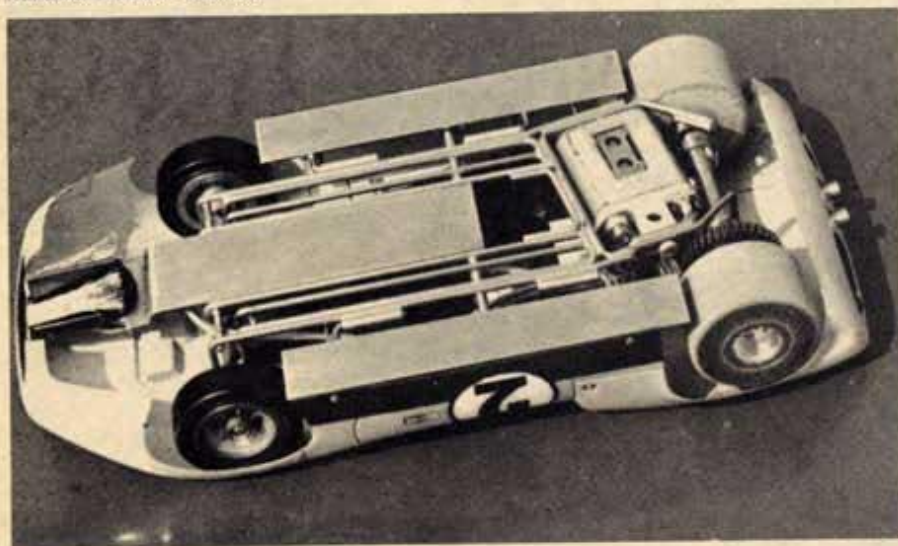
Fred, who was running a Wong chassis, is the driver who took on and beat the non-NAMRA cars last meet, and Roy, of course, has just been crowned National Champion. Roy came to this one with a brand new chassis that in practice seemed about the fastest there. The less said about the Cressi chassis the better; enough to say it looked very much like one we had seen in one of his GP cars with the



The NAMRA/MCS motorcade, waiting for the others to catch up. It's thumbs down to a green signal and the pleading of a traffic cop.



The Peluso Porsche that took the hardware in the Consie.



Business view of the ill-fated, latest design from the Roy Wong stable.



The Concours winner, Ford Mk IV by Bob McCarthy.

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addition of outriggers.

At the start of this 140-lap event, Correnti jumped into the lead with teammate Wong a scant two feet behind him. Cressi and Hansen were left to themselves back in third and fourth. This order did not change throughout the first 35 laps with the exception that Wong closed in on Correnti, and Hansen and Cressi were swapping back and forth for third with Cressi's car seeming to have the edge.

Nearing the 70-lap mark, Cressi, who had from somewhere pulled some super-power, was beginning to actually close up the distance between himself and the first two cars. Then it happened. Something that most of us dread befell Wong. Coming out of the last turn and onto the main straight, his car lifted its nose enough to glide very gently right into Cressi's slot. Cressi, who was just entering a long chute himself, swears he did not hear Wong's scream, but in any case punched it and Wong's car flew down the straight through the bank and back onto the next straight. At this instant we can honestly say Cressi was driving his own car as hard as he could; however, he was also driving Wong's.

As we all know, you can only drive one and so it happened: Wong's car flying down the back straight never let off for the hard right hander and plowed right into a non-giving wall. The vibration was felt at the front of the shop. Wong seemed to melt and suddenly an evil smile played across Cressi's elfin face and it was then we suspected the worst of the old man.

Wong spent the rest of this segment trying to straighten out his new car and Cressi roared on.

The third quarter saw Cressi slowing down enough to let Hansen's very fast car into second while he chose to lecture Wong on some of the basic rules (see photos). This over, he then gave Hansen notice he was out for second and began to motor with that look again.

Correnti, who had lost no time at all during all this, was urged not to let Cressi in, and this may have been Cressi's downfall. So aware of Correnti's position did he become that Cressi was caught completely off guard when Hansen with an expert ease that we haven't seen since the old Ursaner days, put a wheel to him going into a tight turn and sent him into the wall with a bang that echoed the Wong mishap. Cressi replaced his car and punched it, only to have it do a most fantastic three-wheel hop for four feet. We've never seen a rear axle, bent so far, still revolve.

This gave second spot to Hansen, without question, right behind Correnti who had lead from start to finish, and third to Cressi, who had to suffer the indignity of doing some sort of hop, skip and jump across the line. Wong, who never really got his car straight, limped in for a very slow fourth. Next month, a report on an enduro.

The Official Voice of NAMRA-HOCCI

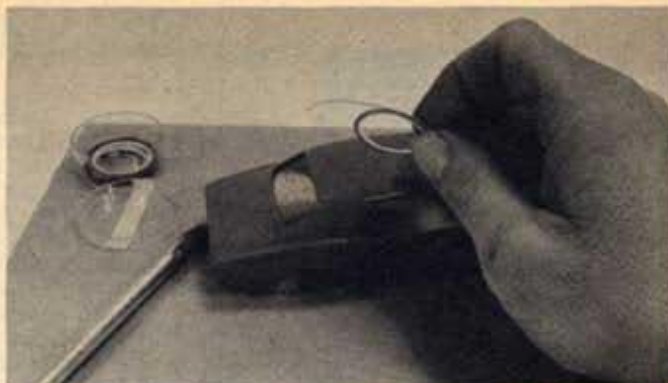
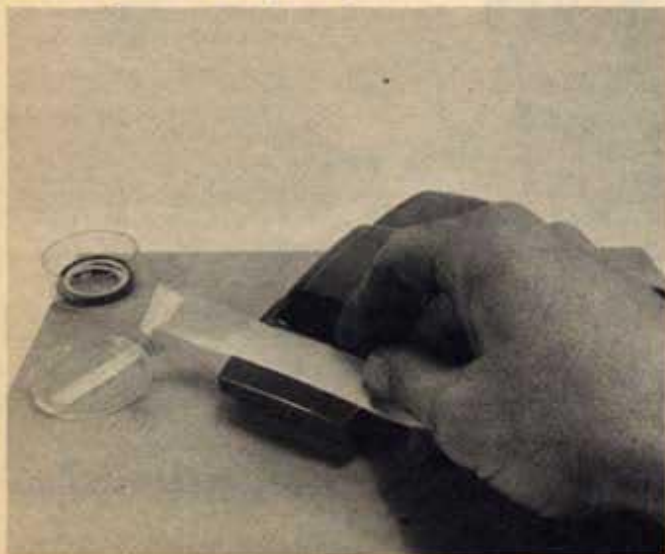
HOW TO MAKE

By Ben Millsbaugh

A IT'S EASY AND IT LOOKS GREAT! VINYL TOP

The big craze these days is to have your vinyl top painted on instead of spending a bundle to get the real thing. In building a model it is sometimes even more difficult to put scale plastic on the top of a 1/24 or 1/25 scale car. Why not do it like the pros? With a minimum amount of effort a modeler can get the neat vinyl top on his car without messing things up. Any good flat black paint works well, especially a primer surfacer. Okay, let's go to work on our new project.

First use masking tape to outline the lower tape. This is tricky, so take your time. Make sure that no part of the lower body can be hit by overspray.



You'll need some Auto Tape or Pro Stripe 1/16 inch tape, an X-Acto knife and later, the primer.



The first thing is to lay two equal strands of tape across the roof to simulate the seams used on real vinyl tops.



Now lay the tape around the lower edge of the window and bring it to the base of the roof.

Masking tape edged with paper keeps the paint off the rest of the body. Check for any leaks at this point. Heat your primer in hot tap water, shake, then spray. It will only take about two good coats. Once you've sprayed the top, let it set for about two hours before removing the tape. This will decrease the chances of "pulling" the paint when you remove the masking.





By Tom Malone

This past month a letter came across my desk from Polk's Hobbies, the U.S. distributor for Mabuchi Motors, stating that in spite of erroneous reports, Mabuchi is not out of business, nor are they not making the 16-D motors any more. The letter goes on to state that because of unusually large orders, back orders and production delays resulted in a great scarcity of Mabuchi motors.

Well, I made that original "erroneous" statement and if I'm wrong then I stand corrected. However, the fact remains that American rewinders, who make up a large part of Mabuchi's sales, went weeks without material with the result that they turned to U.S. companies for parts, using better quality material, to become O.E.M.'s (original equipment manufacturers) instead of merely rewinders. The net effect of all this is that Mabuchi might as well have gone out of business as far as the U.S. market is concerned because I can only recall two companies who will be using imported Mabuchi motors, and these in the ready-to-run field, Riffin and Lancer. (The latter's new activities I'll talk about later.)

The other two companies with ready-to-run cars either use their own motor (Cox has their Super Nascar) or use other imported motors (Russkit imports the Hitashi—called the Russkit + 27 over here.)

As I reported some months back, Mura and Champion make their own motor parts so they are OEM's, not rewinders any more. Curtis Engineering is buying American parts from other companies and now Dyna Rewind has joined the list as an OEM. Dyna reports they will soon have their own armature, magnets, heat-resistant head (blue color just for a change of pace), and there are rumblings heard of their having a new case in the works

THE TECH SHEET

as well. Dyna says the present "Scrambler" series of motors using the Tradeship case is only a fill-in motor until they can complete their own tooling.

It's interesting to sit back and watch this transition in the American rewinding field from completely imported components to almost completely original manufacture. Involved in this process has been the American demand for improved technology from the various vendors of steel, magnets, brush and commutator manufacturers. This Americanizing might have come about regardless of any Mabuchi delays but it is pretty safe to say the delays certainly hastened the switch over.

It's rather comforting to know that new magnets are on the way from Dyna. I'd like to see some real competition develop in motor parts of all types—not just in magnets. The tooling costs for all of these parts is frightening, but to the average slot racer it can result in availability of better quality motors. I will go so far as to predict that this Americanizing of commercial rewinds will result in motors which will not bear any resemblance to the original Mabuchi designs.

The Mura-Lenz and Tradeship cases are only the start of what I feel is going to be a growing trend of original designs. It wouldn't surprise me to see new endbell designs along with

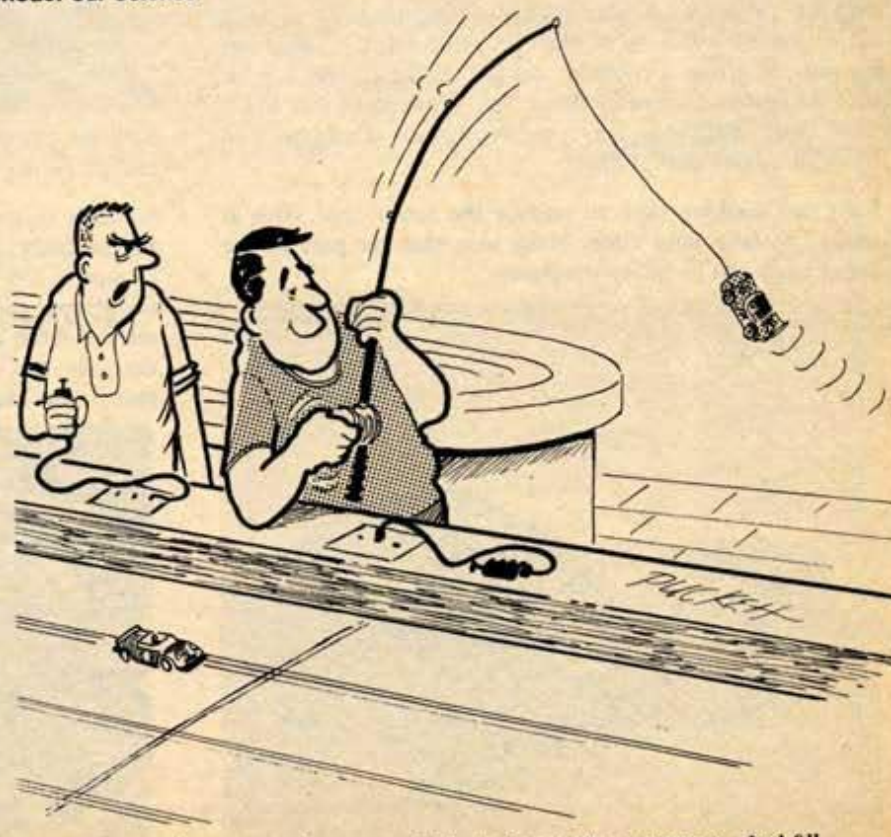
different brush set-ups in the future.

I have seen some 26-D armatures in 16-D cans made by Dyna Rewind and listed as experimental, so possibly this might be the next trend. The one I tried on a local track would keep up with the best of them, and just looking at the wire size, it appears smaller than some of the "coat hanger-sized wire" used on a lot of motors these days. This motor had a shortened case to match the short 26 D-type lamination and cut down magnets, so it would seem better suited to long-type tracks.

Now a look here and there around the market at some new products along with some rumors of what's coming out shortly:

To start off, Lancer is going to be coming out with decals which will be exact duplicates of the ones on the real car. The next bit of news is that Lancer has decided to jump into slot racing with both feet. Up to now all Lancer has made are plastic bodies, but now they will be offering a complete line of parts including ready-to-run cars. The first ready-to-run is the MGA McLaren with authentic decals; an in-line rod-type chassis and 16-D Mabuchi motor. In addition they will have, under the Lancer label, tires, wheels (set screw), guides, gears, two in-line chassis (GP and Sports-type) and a semi-sidewinder followed by a 1/32 scale R.T.R. car and chassis, etc., and, yes, their own American rewind motor. If your local track hasn't gotten a new Lancer catalog, then have the manager write directly to Lancer on his official letterhead for one.

Model Car Science



"Why can't you retrieve your deslotted cars like everyone else's?"

I tried out a bullet-proofing kit by Mini Wheels recently and now I'm bullet-proofing all my motors. I think the idea is so good it will probably be copied by other companies (with variations, of course).

The original idea for making the endbell more heat-resistant by using a 1/16-inch brass plate on each side to dissipate the heat over a larger area, was started by Dick Hoyt, I understand. I must admit that even I have been guilty of copying the basic idea and making my own variations of it even on "unmeltable endbells" (which will melt if subjected to too much heat)—but let's be truthful—even rock will melt (lava!) if you have enough heat and these black endbells (all I use now) are a big improvement over the old white ones.

I've been cutting off the front plastic on the Mura endbell and adding a plate over the bearing much like the Mini Wheels kit does, but making the plate a little thicker and a lot wider. Then instead of filing down the bottom of the heat sink and soldering this to the bottom plates, as Mini Wheels does, I simply left the heat sink as is and cut the little plastic shoulder away on each side. I made two separate brass plates to fit top and bottom of each heat sink and soldered each side with Lenz Hi-temp solder. Next, I bent the cover plate in the form of upside down "V" shape so it will fit over the two top sides of the

heat sink. The cover plate ends up looking like Champion's pent-roof cover plates.

The final part of the "super-bullet-proofing" is to add two strips of soft copper plate over the pent-roof cover plate and extend these clear over to connect to the spring posts, making them as wide as is practical. The lead wire and shunt wire are soldered to the top of these cover plates, so the lowest possible voltage drop is taken in the whole set-up.

Use regular Mabuchi brushes and make a shunt with about a half-inch of multi-stranded wire from an old extension cord so it fits between the spring and the brush while the other end of the shunt is soldered to the cover plate. All the work will make it so melt-proof that even old "Smokey the Bear" will certify it as being "unburnable."

The Mini Wheels' bullet-proofing kit is effective just as it is, but if you wish to super proof it, I would suggest you buy the kit to obtain a good pattern to work from. (Thanks to Dick Hoyt we have just solved another problem.)

The plate which is soldered over the endbell bearing solves the problem of sloppy bearings due to heat when the pinion is placed on the endbell or commutator side of the motor, especially in semi-sidewinders.

I prefer to reverse the armature and run the shaft and pinion (this means

starting with a blank armature and shifting the laminations so the correct spacing is obtained for a reversed-type armature), out the case end because the good motor and rear bearing metal to metal fit provides a stronger support and less bearing wear. Better weight distribution too!

Because the metal case is in direct contrast with mounting bracket, the whole chassis acts as a sort of heat sink and this probably accounts for increased "bearing life."

I heard that Mura was going to come out with a shortened can with mounting holes already provided in the back of the case.

Some other products that look good to me are the various semi-sidewinder brackets by Associated, Mini Wheels, Cobra and Dynamic. They all look good.

The 2½-ohm Russkit resistor caught my eye so I tried one in my old three dollar Russkit controller (never did own one of the expensive ones!). I added a little stronger return spring and soldered a Simco brush to the wiper and #12 gauge lead wires. This controller is just right for a motor using #24 or #25 sized wire. This past month I also tested out two other controllers—the Champion and Dyna-Rewind's new exposed resistor-type. Both have less than 1-ohm internal resistance, which is good. The lower the better with these hotter motors.

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HOW TO USE RUBBING COMPOUND

By
Ben
Millsbaugh



Here are your two necessities: Rubbing compound and a soft rag such as an old T-shirt or diaper.

DO IT
THE RIGHT WAY!

To the experienced old pro this article may seem very elementary, but to the guy who has never used rubbing compound, it may be a breakthrough in technique. Rubbing compound brings out the luster in lacquer and plastic compounds. There is a right way to hold the rag for small work and that is just what we're going to show you here. Since most modeling is done in 1/24 and 1/25 scale (for cars) you can't be too sloppy in your technique, either in painting or polishing. Let's take a look at the right way to get the best job.



Twist the top of the rag so that it pulls tight around the tip of the finger. Tuck the twist and excess back into your hand and you are ready to use the compound.

Evidence is shown here that the compound is cutting. The first few strokes are made with more pressure than the final polishing ones. As the polished shine starts to come out, let up on the pressure and start the light buffing process.



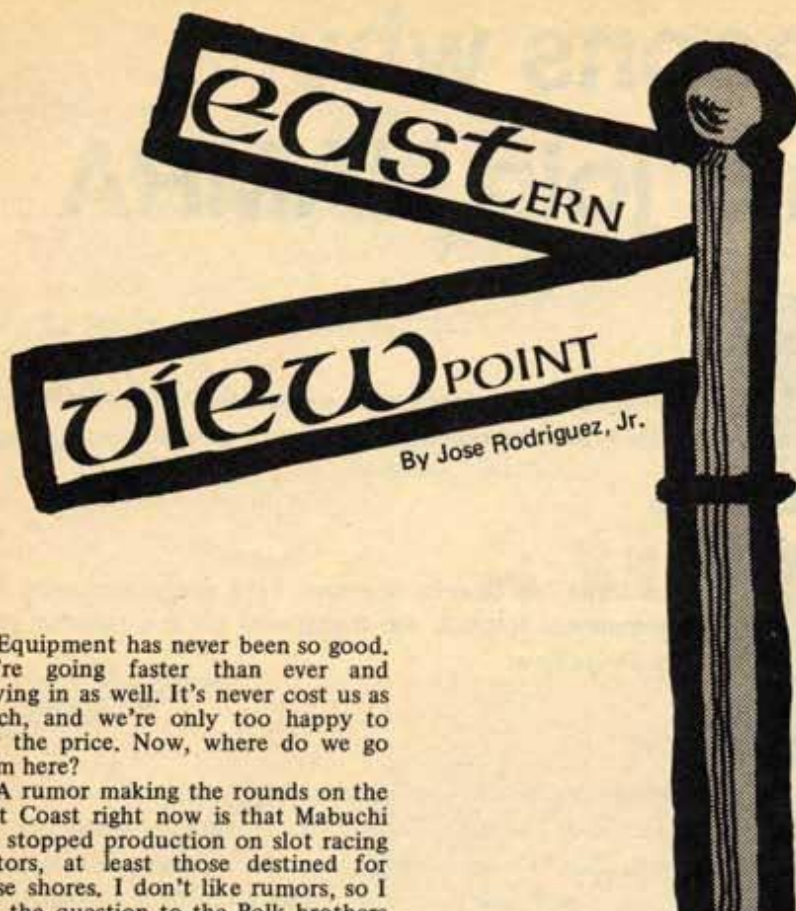
Surprisingly enough, a lot of guys don't know how to hold the polishing cloth correctly. First, lay out the cloth and "stab" your index finger into the middle, and flip the rag over the finger like this.



Apply the compound to an area about two inches square. Start rubbing back and forth with firm but not too hard strokes. Occasionally wet the tip with your tongue or a small cup of water to keep the compound oil working out evenly.

Find another point on the rag and repeat the process in photos 1-5. Do not use compound this time. Wet the rag only slightly. Buff the lacquer until you get a brilliant gloss, such as shown. Easy once you know how!





Equipment has never been so good. We're going faster than ever and staying in as well. It's never cost us as much, and we're only too happy to pay the price. Now, where do we go from here?

A rumor making the rounds on the East Coast right now is that Mabuchi has stopped production on slot racing motors, at least those destined for these shores. I don't like rumors, so I put the question to the Polk brothers in New York. They're Mabuchi's national distributor for all his motors. The answer I got was "Not true." "Mabuchi was just in the process of trying to catch up with orders."

Now, I have a second question: what orders, and for what slot racing equipment manufacturer?

Champion has had their own can for sometime and it can look down its nose at any slot racing Mabuchi any time. Mura needs a Mabuchi now like Ford needs its old flathead. And others like Cobra here in the East give Mura the nod for their topline go-power. The big hobby people like Revell and Monogram sure aren't buying any more Mabuchi's, so again, who put in this big order that forced Mabuchi to catch its breath? Think about it; think about just how big an order and how steady it would have to be to have Mabuchi even consider it. Something tells me there are no more Mabuchi's. Something also tells me that you and I are partly responsible for it. We put our orders in, but for other motors now, and I think even if we continued using the original standard there just wouldn't be enough orders to make it worthwhile for the guys in Japan.

And this brings me to the point. Although we are the market, we are no longer the *big* market required to support the many people who are in business. At one time not too long ago, the market supported many more manufacturers who were in it up to their gold teeth. Look around your neighborhood at the empty shops that

used to be raceways. Count the names of those involved in national races. What do you total?—thirty, forty at the outside. And they're the same names all the time. Our National Slot Racing Jet Set, as they're referred to, travel thousands of miles every year. To race? To promote? I don't really know. I know they are actually racing. I can only hope they are really promoting the sport. And I hasten to add, this is in no way a criticism of the individual drivers, other than how a few of them look. These are the best miniature racing car drivers the world has seen to date.

Unfortunately, very few of them buy enough across the counter to help pay the light bill in any shop. The support, the kind that's needed, does not, because it cannot, come from them. In fact, in some instances I have seen the local thumbs never bother to unpack after watching the Jet Set practice, play, and smash all the house records. The slot racing organization is here for the asking. Sure, in my opinion it's NAMRA, but this is not a NAMRA plug.

There have always been rules. In fact, right now you can run 1/24 machinery by your choice of four, count them—four, national sets of rules. USRA, Car Model, Arco all cater to the speed merchants in the larger scale only. And look the other way for scale. NAMRA has rules for both 1/24 and 1/32 and goes as fast with scale cars. So we aren't lacking here. You have a choice.

Where we are lacking is in new blood. And this, too, I feel will come. But it must come before every guy who can make a shell, or wind a motor for the masses hangs it up or goes looking for other work.

I grant you it's been said before. Slot racing will have a rebirth and comeback. I change only this. Slot racing will come back, a rebirth is inevitable, the sport is that great. But, it will come back slower, without the three-ring circus manufacturers, and it must come back stronger.

There are some young guys out there right now who probably never heard of *Model Car Science*, who will show up some day and become the new generation of elite drivers. And these drivers will come with no preconceived ideas or idols. The Ursaners and Cukras may be talked about for years to come, but it may be in local club houses rather than 10,000-foot raceways.

Slot racing is not sentimental. When the red, white and blue Pittman-powered car gave 'way to the tin can, few looked back, and fewer cared. The sidewinder invasion is the latest example. Remember in-line rod chassis... unbeatable, right? And as I write this, few consider the Mabuchi "hot set up" anymore.

I realize that perhaps many of you who have gotten this far are probably thinking, "Rodriguez is off again; more of his kiss of death stuff." If this is what you believe, then turn to the customizing section, because this is a sincere plea for the sport, and that's all of us, to take a second look at where we stand, before we take many more steps.

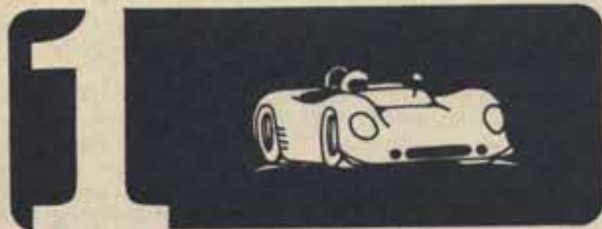
Most of the drivers in the country today scream, "To heck with proportion and scale! Let's go fast, and let's do it in 1/24!" There are going to be a lot of static models with rusty motors in them when the last slot shop closes for lack of support.

Others whisper, "Fine, let the monsters die, 1/32 is the only way to go and that, as in the beginning, can always be raced at home."

The third and last group, the one you never consider without a smile, but the one who is today spending more money across the counter, is by far the strongest in number, support, and organization. Show me any organization, 1/24 or 1/32, that can boast a membership of over 2,000 loyal enthusiasts, 2,000 who have never gotten the recognition nor fanfare the others get. They have two things, however: They have a belief in their segment of the sport, and support it, and they have one organization that has unified them under one set of rules. Sure, the rules don't please them all, and changes are being made, but they are helping, not going off in separate directions and forming their own independent empires.

Divided, you don't have a prayer. You won't even have a sport.

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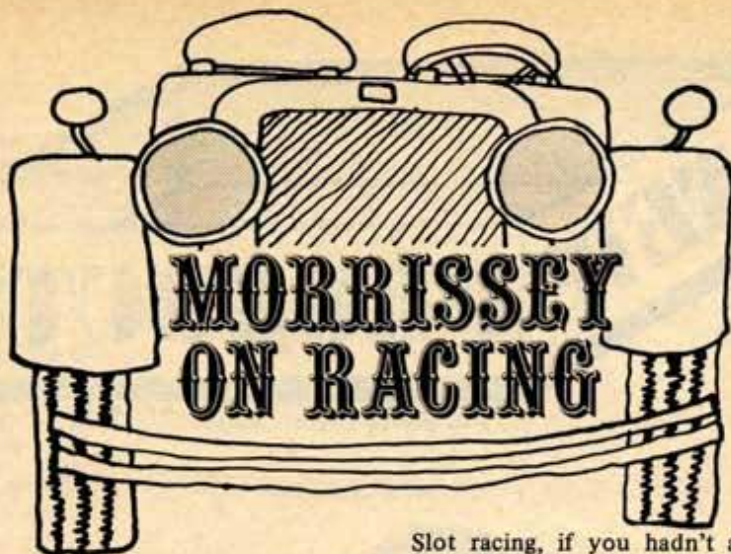
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Wild!

In last month's column, I lamented the death of my little paper, MODEL CAR JOURNAL, and remarked about how things like that develop and die. Well, here I am this month announcing that a new paper is being organized and will have its first issue published by the time you read this.

A corporation has been formed, headed by Don Vanderwall, owner of Don's Raceway in Downey, California, and made up of slot racing manufacturers and distributors throughout the country.

I won't own any part of it this time, but I will be the Editor. It will have the same general format as before, and probably the same name. Anybody wanting information on it should call Don's Raceway, (213) 923-0219.

End of plug.

Hey, that Western States Championship race, reported in this issue, I believe, and if not, the next one for sure, was just fantastic. Held on that tough driver's course of Ray Wallace's, it was very significant because it was the first big race in which the Los Angeles super pros were put down by an amateur.

Gene Husting's story will tell you all about it, but I'd like to say that young Charlie Nelson's drive was one of the best jobs I've ever seen. He sure made a lot of the big names look bad as he did it, and only Doug Henline's incredible 8.19 qualifying lap kept Charlie from pulling off a sweep.

Perhaps this will prove once and for all that the seemingly almighty pros can be beaten by somebody with real talent and intelligence like Charlie. Sure, the old drag racers' line—"Speed Equals Money, how fast do you want to go?"—applies pretty well to slot racing these days, but it can still be done with no support.

Charlie did the whole thing himself—chassis, motor, and controller—with no help or free parts from anybody. But it's perhaps more significant that, if he had wanted to, he could have had something very, very fast just by getting out his wallet.

Slot racing, if you hadn't already noticed, has developed to the point where it's getting nearly impossible to come up with anything better than the production or limited production equipment now available to you. Just by paying for it you can have good enough equipment to put you in a main event at nearly any race in the world—if you can drive, of course.

For instance, say you want to do something at the California Arco race at Don's in November. It'll be on a battery-powered 155-foot American Blue track, so it won't be anything too unusual.

Remember now, you're out to win, and you're really bucks up at the moment, so here goes:

You should have a minimum of two complete cars running (race the best one and practice with the other) so you'll need two really good frames. For them I'd recommend you talk to Bob Emott, Bryan Warmack or Mike Steube. (I can't make this column a string of commercials, so I won't put their addresses in here, but if you showed up a week or ten days in advance of the race you'd find them at the track, as well as the others I'll mention here.)

These three, in my opinion, have established themselves as the very best chassis builders in the country. Their craftsmanship and knowledge of what it takes to get a car to simply go around corners fast are unmatched in the U.S., and, I'm sure, the world. Get one from Emott for sure and one from either of the other two to give you chassis from more than one school of thought.

They'll give you something that'll probably be as good as they'll be running on race day for \$20 each.

Next you'll need motors. If you're serious you'll need four, I'd say. Get one from Pete Zimmerman and one from Bill Steube for \$25 each (I think), a new Mura "Team Cukras" motor with the thin (.007") armature laminations for \$22.50 and perhaps a Champion 517B or Mura 1000 for around \$15 each. Yes, friends, I'd say \$102.50 would set you up pretty well in motors, but you'd better have an extra \$20 lying around to get you two or three new armatures just in case

your \$100 worth of motors all decide to blow.

And it has been known to happen, you know.

Let's see, that makes it \$140 or so, and we're not even close to being done.

You'll need bodies, and not just any old kind of bodies. The Arco races are all for sports cars now, and you'll have to have real lightweights, so I'd strongly recommend either Russkit's new Elfin or Dynamic's new revamped Lola 70 and McLaren M6A. Don't bother painting them yourself (they'll just curl up and distort if you don't know what you're doing) but instead have Bob Kovacs shoot them one of his incredible colors.

The lightweights don't last long, so I'd recommend getting two each of the three types. You can get them all from Kovacs for \$3.30 each, or around \$20 for the lot.

\$160.

Then spend another \$20 on tires, axles, gears and braid. I'd recommend either Rikken or Associated tires, and Cox nylontron sidewinder gears.

\$180.

Finish up with two controllers, both modified Russkits (don't even bother with a thumb-type thing), one from Parma Model Raceways in Cleveland and one from Bob Emott again. Parma gets \$12, Bob \$15.

Grand Total \$207.

YIPES!!!

Well, at least you're ready to take on the pros now, with equipment as good as theirs. But you'd obviously not want to do it up brown like this unless you're in the extreme upper tax brackets. However, \$65 would get you one controller and one complete car. Still a lot though, isn't it?

But the point is that slot racing has reached the stage where you can just go out and buy your way into the big time. This just wasn't possible last year, you know.

Of course, if you can build a decent chassis yourself, cut your own tires, and build your own controller you can cut this cost in half. I'd advise against bothering to try and build a motor that will beat the latest production screamers. It's sure to be a waste of time these days.

The days of the complete \$20 racer, that's competitive in the big races, are gone forever.

Shop-owners: please take note. If you are still trying to get by with power packs on your tracks, forget it.

The modern super-amp-draw motors have made obsolete just about every power-pack supply in the world. I have yet to see or hear about a pack that can cope with the new wild, wild winds, making a good battery setup an absolute must.

Even here in Southern California, the stronghold of the sick power-pack tracks, dealers are, one by one, switching to batteries. Do yourself a favor and modernize your power supply now before your customers get fed up with your outdated packs.

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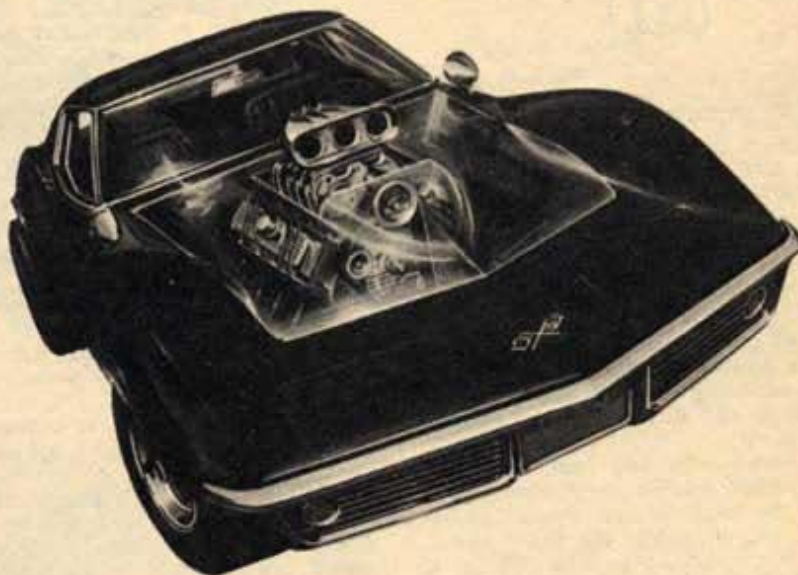
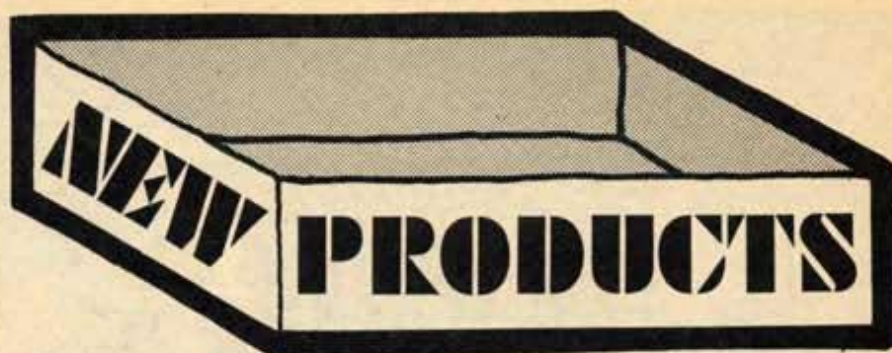
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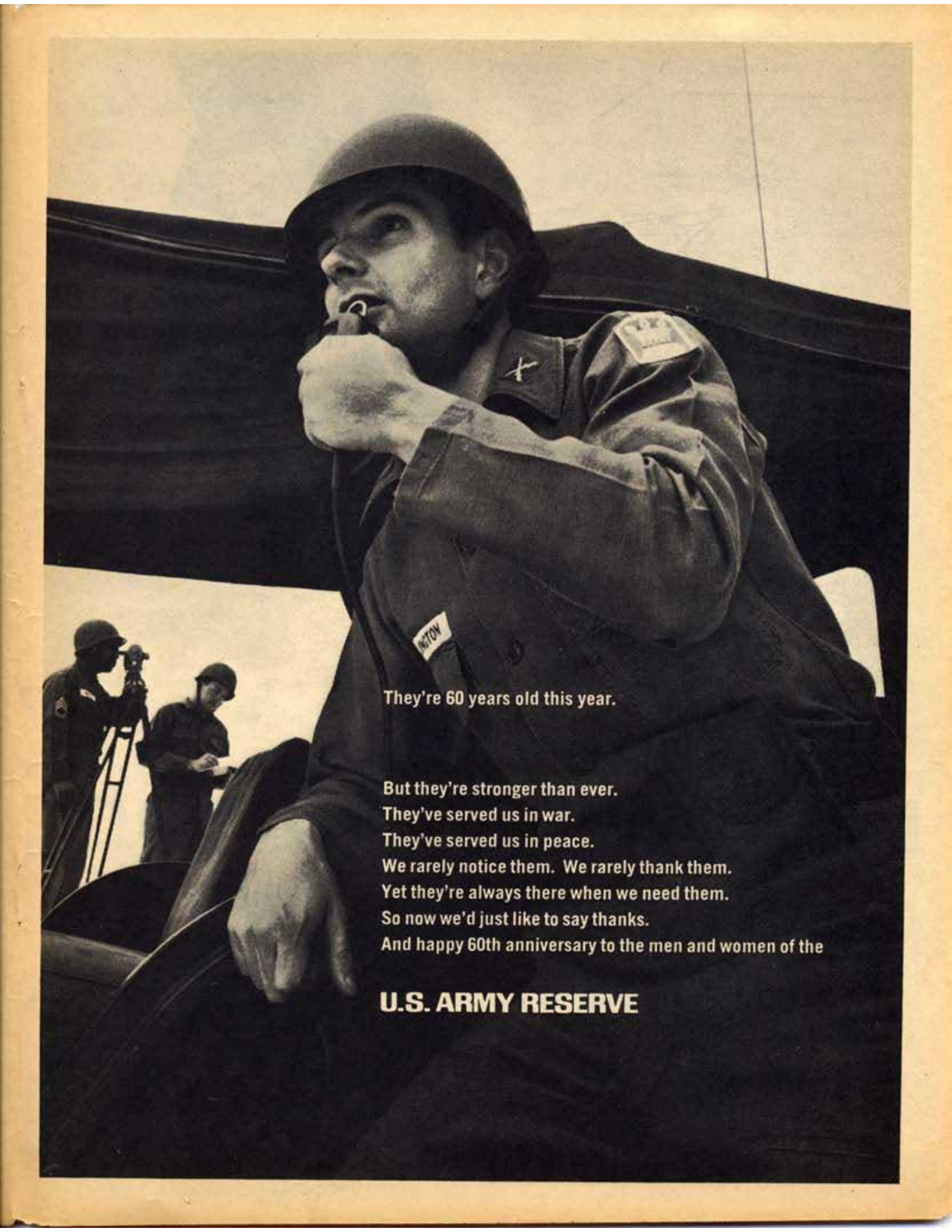
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We rarely notice them. We rarely thank them.
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car modeling,
pick up a
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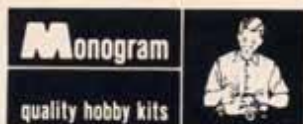
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